

DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1926, No. 18

# SURVEY OF EDUCATION IN UTAH



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

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## LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, D. C., October 5, 1926.*

SIR: I am transmitting herewith the report of a study of public education in the State of Utah. The study was made under my direction, with your approval, at the request of the State board of education. Seventeen persons made up the survey staff, in the composition of which specialists of the Bureau of Education, Department of the Interior, were assisted by eminent authorities in education selected from widely different sections of the country. This enabled us to bring to bear on the problems the best possible judgment and experience. The staff members spent approximately 500 days in field work in the State of Utah studying general and educational conditions. The findings in this report are based on first-hand study and observation and on the interpretation of a vast amount of data collected by the staff, with the cooperation of school officials in Utah. The report was prepared only after extensive conference and discussion by the staff as a whole. It represents the consensus of opinion on the larger problems considered. While the report is made particularly for the people of Utah and applies primarily to conditions in that State, the principles on which conclusions and recommendations are based are general in their application and will be suggestive or adaptable to other States contemplating changes in their educational systems. I believe, therefore, that the report will be of value not only to the people of Utah but to the people of the United States and to students of education generally. I recommend that it be published as a bulletin of the Bureau of Education for distribution to the citizens of Utah and to others interested throughout the United States.

JNO. J. TIGERT,  
*Commissioner.*

The SECRETARY OF THE INTERIOR.



## FOREWORD

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The State Board of Education of the State of Utah, by resolution adopted April 13, 1925, instructed and empowered the State superintendent of public instruction to conduct negotiations with the United States Bureau of Education of the Department of the Interior, looking toward a survey of higher education in Utah. Following this action an invitation to survey higher education in the State was formally extended to the United States Commissioner of Education by the State superintendent of public instruction for Utah. However, before negotiations for carrying on the proposed survey were completed the State board of education decided that the proposed study should, if possible, be extended to include the entire public-school system—elementary, secondary, and higher institutions. Accordingly, the original request was supplemented by a further request for a State-wide educational survey of the public-school system. The United States Commissioner of Education, with the approval of the Secretary of the Interior, on October 14, 1925, accepted the invitation to conduct such a state-wide educational survey presented through the superintendent of public instruction for Utah. Extracts from the letters of invitation and acceptance follow:

APRIL 13, 1925.

Dr. JNO. J. TIGERT,

*United States Commissioner of Education,*

*Washington, D. C.*

DEAR DOCTOR TIGERT: At a meeting of our State board of education, which was held April 7, the following resolution was passed:

"It was moved and carried that it be the sense of the meeting that the State superintendent conduct negotiations with the Federal Bureau of Education looking to a survey of higher education in Utah."

It would be very agreeable to the State board of education to have the work begin early in the next school year. We do not know the number of assistants which might be needed, but the State department here is in a position to secure the services of competent local help.

C. N. JENSEN,

*State Superintendent of Public Instruction.*

FOREWORD

HON. C. N. JENSEN,

MAY 11, 1925.

*State Superintendent of Public Instruction,*

*Salt Lake City, Utah.*

DEAR DOCTOR JENSEN: Relative to the matter of the survey of higher education in Utah, I have concluded that it will be possible for the Bureau of Education to undertake the survey which the State board of education desires early in the autumn.

As soon as I hear from you concerning the scope of the investigation desired it should be possible for us to submit a tentative budget covering the expenses of the survey.

JNO. J. TIGERT,  
*Commissioner.*

SEPTEMBER 3, 1925.

DR. JOHN J. TIGERT,

*United States Commissioner of Education,*

*Washington, D. C.*

DEAR DOCTOR TIGERT: At the meeting of the State board of education, August 28, I placed before the board the question of having a survey of the elementary and high schools of the State. The board authorized me to enter into an agreement with yourself to have the Federal bureau make a survey of the elementary and high schools of the State. I shall be pleased to learn from you the probable time at which this work may be undertaken.

C. N. JENSEN,  
*State Superintendent of Public Instruction.*

SEPTEMBER 14, 1925.

HON. C. N. JENSEN,

*State Superintendent of Public Instruction,*

*Salt Lake City, Utah.*

DEAR DOCTOR JENSEN: We note that your board has authorized you to enter into an agreement with this bureau to make a survey of the elementary and high schools of the State.

We are accepting at this time the invitation of the Utah State Board of Education to undertake the survey, but can not make a detailed estimate of the cost without further definite information.

We can not undertake the full program until some time in the spring, April or May, if agreeable to you. It saves time and expense if the staff can do the field work during reasonably good weather. At any rate there is no possibility of our being able to get to the work until spring.

JNO. J. TIGERT,  
*Commissioner.*

OCTOBER 2, 1925.

FEDERAL BUREAU OF EDUCATION,

*Washington, D. C.*

GENTLEMEN: A formal request is hereby made to Dr. John J. Tigert, United States Commissioner of Education, to have the Federal Bureau of Education make a survey of the elementary and the high schools of the State of Utah, the work of the survey to begin during the present school year. This requirement is made in conformity to action taken by the Utah State Board of Education at a meeting held in the office of the State superintendent of public instruction, at Salt Lake City, Friday, August 28, 1925.

C. N. JENSEN,  
*State Superintendent of Public Instruction.*

Field work on the preliminary study of the State school system was begun on December 28, 1925, by the Commissioner of Education



and a member of his staff. During this preliminary investigation the Commissioner of Education met with the district superintendents and other school officials, called in conference by the State superintendent of public instruction, and with the State board of education. At the conference with district superintendents and school officials the purposes and scope of the proposed state-wide survey were explained. The cooperation and assistance of school officials throughout the State was requested both in the study of the efficiency of the schools and in the collection of information. At the meeting with the State board of education, the Commissioner of Education formally presented plans for the conduct of the survey, which had been made during the preliminary study in the light of the situation in the State. A personnel to supplement the members of the bureau staff which the commissioner expected to assign to the work was recommended. The assisting educational experts from outside the bureau were selected by the Commissioner of Education from widely separated sections of the United States, each a recognized authority in his field. The plans for the conduct of the survey and the staff as recommended were formally approved and accepted by the State board of education January 6, 1926.

General field work of the major part of the staff began March 15, 1926, and extended to the latter part of April. The special study of school support was made the latter part of May and in June. Certain preliminary studies concerned with higher education had been made in September, 1925. The full staff consisted of 17 persons, who spent approximately 500 days in field investigation aside from the time necessary for collection and compilation of data and its interpretation and in preparation of the report. The survey staff had the cordial cooperation of the State superintendent of public instruction, of his staff, and other State officials; of local superintendents, supervisors, teachers, and citizens throughout the State; and of State and private educational institutions. Conferences of the entire staff were held preceding the closing of field work in Utah for the purpose of discussing the situation as a whole, organizing plans for the formulation of the report, and outlining the recommendations to be offered. These conferences were supplemented by additional group conferences, held after summaries of information were made and during the preparation of the report.

The conclusions and recommendations offered, with the exception of those contained in the study of school support (Chapter XI), which was made a separate study by a specialist in this field, are the result of agreement of the entire staff.

The staff assigned to the study of higher education in the State investigated the work of the State higher institutions in all their departments. They made additional studies of the teacher-preparing departments of several private institutions which are recognized by



the State board of education as complying with State regulations for teacher certification.

In the study of the elementary and secondary schools the sampling method of observation and evaluation was adopted. The districts selected as representative of conditions throughout the State, which were used for intensive study as sample districts, are indicated in the map, Figure 1. Other districts which were visited by one or more members of the staff for special purposes but not included in the sampling districts are also indicated. The members of the bureau staff were assisted in the conduct of the testing program by professors of education and graduate students from the State higher institutions of learning, by members of the staff of the State department of education, and by a number of district superintendents selected as representative of the whole State. Tabulations of results and interpretations were made in the Bureau of Education. Three county districts, in addition to those selected for intensive study, were selected for the survey of the school building situation. These also are indicated in the map, Figure 1.

The Bureau of Education and the people of Utah are under obligation to the State superintendent of public instruction and his staff; to the city and county district superintendents and members of their respective staffs; to the two State institutions of higher learning; and to the private institutions for their active cooperation with the survey staff. In the arrangement of itineraries and in furnishing transportation, as well as in the collection of information, the State superintendent of public instruction and the State department of education, the county district superintendents and their departments extended every courtesy and the facilities of their respective offices. City superintendents and institutions of higher learning, both State and private, cooperated in the most cordial manner. Without the free access to available information, extended through the courtesy of these organizations and officials, as well as their advice and counsel throughout, the successful conduct of the survey would have been seriously hampered.

Following are the members of the survey staff:

*From the United States Bureau of Education:*

John J. Tigert, United States Commissioner of Education, Director of the Survey.

Lewis R. Alderman, Acting Chief, Service Division, Specialist in Adult Education.

Katherine M. Cook, Chief, Rural Education Division.

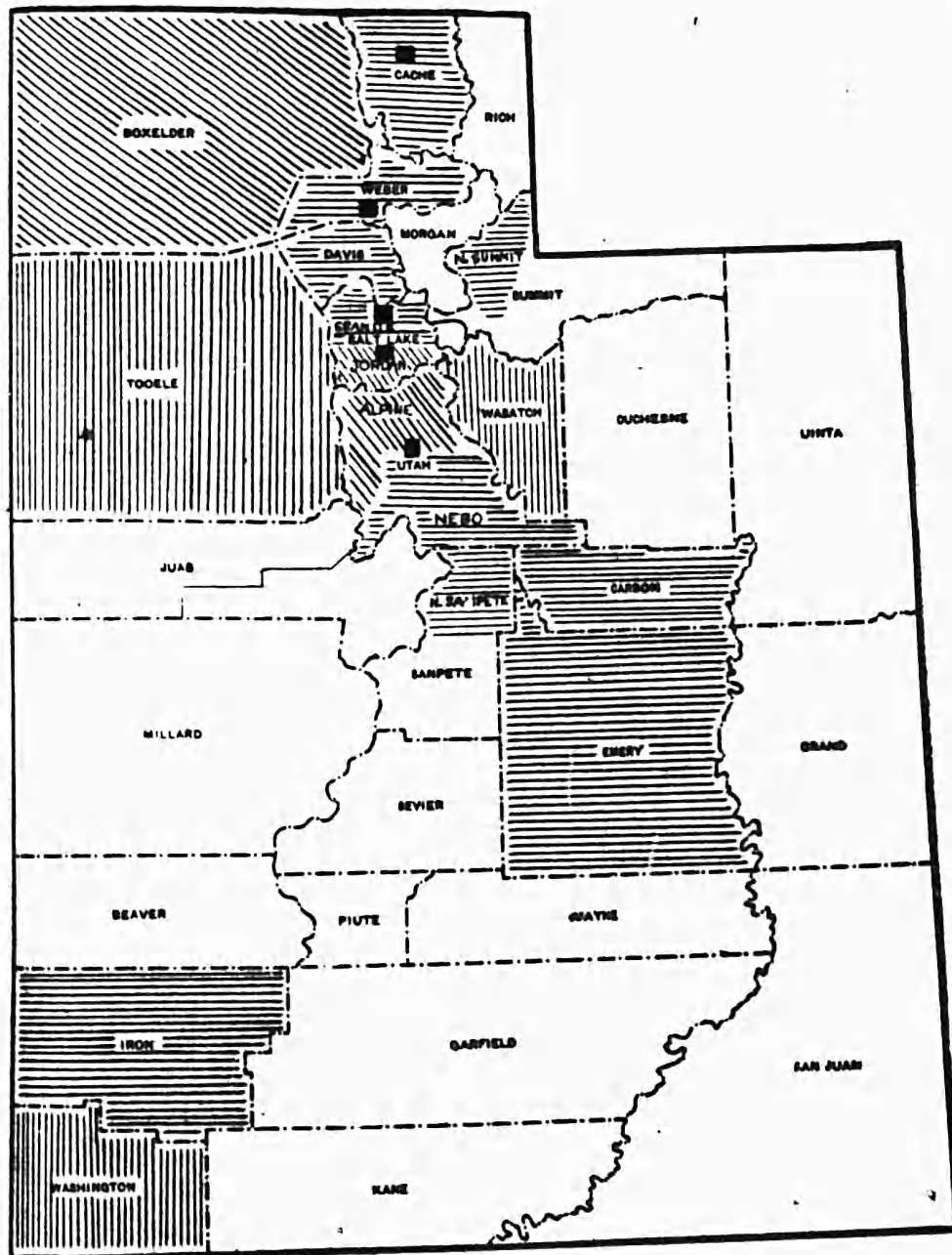
Mary D. Davis, Specialist in Nursery-Kindergarten-Primary Education.

Walter S. Deffenbaugh, Chief, City Schools Division.

Arthur J. Klein, Chief, Higher Education Division.

Maris M. Proffitt, Specialist in Industrial Education.

# SCHOOL DISTRICTS UTAH







-  Districts selected for "sampling"
-  Districts visited by one or more staff members (not included in above)
-  Districts included in study of school buildings
-  Independent city districts

FIG. 1.—School districts in Utah



*From the United States Bureau of Education—Continued.*

Annie Reynolds, Assistant Specialist in Rural Education.

William McKinley Robinson, Assistant Specialist in Rural Education.

James F. Rogers, Chief, Physical Education and School Hygiene Division.

Emeline S. Whitcomb, Specialist in Home Economics.

E. E. Windes, Associate Specialist in Rural Education.

*From outside the Bureau:**Advisory consultants—*

Charles H. Judd, Director School of Education, University of Chicago, Chicago, Ill.

Jesse B. Sears, Professor of Education, Leland Stanford Junior University, Palo Alto, Calif.

George A. Works, Rural Education Department, New York State College of Agriculture, Cornell University, Ithaca, N. Y.

*Higher education—*

George F. Zook, President Municipal University of Akron. Akron, Ohio.

*School buildings—*

J. E. Butterworth, Rural Education Department, New York State College of Agriculture, Cornell University, Ithaca, N. Y.

*School support—*

Fletcher Harper Swift, Department of Education, University of California, Berkeley, Calif.

# SURVEY OF EDUCATION IN UTAH

## Chapter I

### SOCIAL AND ECONOMIC BACKGROUND

#### INTRODUCTORY

The history of civilization is largely the record of man's attempt to control his environment, and of his successes and failures in obtaining control. Nature has conditioned the character of the fundamental stages of the struggle. But as man has learned more about his environment and about himself he has increased tremendously his ability to transform and to utilize nature's work for his own purposes. This is education defined in its simplest terms. Man's struggle with his natural environment determines the trend of his education, and successful learning enables him increasingly to modify the influences of nature upon his own progress.

The social and intellectual life of every State of the United States has been greatly influenced by its peculiar physical characteristics, its climate, land, waters, minerals, and its animal and vegetable life. These have reacted upon the pioneer streams of humanity that have used their varied talents and resources in developing and organizing agriculture and industry, social, political, and religious life.

#### PHYSICAL CHARACTERISTICS OF UTAH

Nature has endowed Utah with a number of characteristics inhospitable to man. Nevertheless, because suitable climate, soil, water, and minerals were provided by nature, the indomitable will of the pioneers and their successors has rapidly dominated the inhospitable elements of environment and has rapidly established the homes of a great people.

In the northern part of the State are the fertile irrigated valleys that are the basis for the development of agriculture in the State.

These are bounded on the east by the Wasatch Mountains and by other distinct mountain ranges, and by the Great Salt Lake on the west. This region furnishes the foodstuffs for man and animals, such as cereals, hay, forage, sugar beets, and the usual staple vege-



tables. Here is the center of a relatively large agricultural population and a number of important towns and cities.

In the more arid regions to the south and on the west side of the central valleys, in the upper plateaus, and in other semiarid regions pasturage is available for raising sheep on a relatively large scale. In the Southwest, the Dixie of Utah, is a semitropical region suited to the growing of figs, lemons, pomegranates, almonds, and similar products.

Notwithstanding the fact that only between 6 and 7 per cent of the total acreage of the State is devoted to agriculture, the nature of the soil, the climate, and water for irrigation enable Utah to offer a diversified agriculture by means of which she can supply a large proportion of basic foodstuffs in the variety and quantity needed. To a large extent the agricultural activities of the State are carried on in a climate that is relatively mild and free from the extremes of the higher or lower plateaus and the extended tracts of the desert regions.

Yet agriculture is limited in Utah, and future developments will be determined by great areas of rugged mountains and by the supply of water which may be devoted to irrigation in the valleys.

Many of these infertile areas of Utah offer a diversity of gifts. A large number of mountain streams are found in suitable locations for hydroelectric-power stations, general water power, and irrigation. This resource is of great importance in developing the manufacturing industries of the State. The mineral resources are diverse and of great value, including large deposits of copper, silver, and gold. Large quantities of lead, zinc, and iron ore are mined and an apparently inexhaustible supply of iron ore is yet to be developed. Large beds of coal and asphalt as well as salt, gypsum, and sulphur are found, and large quantities of petroleum are likewise available. To this we may add a variety of building and semiprecious stones.

Education in Utah must of necessity aid in the conquest of the valleys so that foodstuffs may be raised, in the development of the mountains so that their mineral treasures may be used, in the harnessing of the streams so that fertile soil and mineral wealth may be worked over into products of trade and commerce.

### TRANSPORTATION

Having an excellent basis of agricultural and mineral wealth, Utah has not been slow to make provision for adequate transportation within her borders. Railroads skirt the valleys from the north to the south of the State, and the east and the west are joined by great transcontinental lines. Utah has a main arterial system for long-distance transportation which is adequate for her present needs.



To this she has added an excellent system of public roads under Federal and State aid which increasingly act as feeders to the larger units of railroad transportation. Not only does the transportation system of Utah serve the agricultural and industrial needs of the State but it brings within easy reach of every citizen the marvelous scenic beauties and the peculiar climatic advantages which in the future will attract an increasing number of visitors, each bearing some contribution to the wealth of the State. Education must provide for transportation and related subjects if what has already been done is to reach its fullest development.

### THE PEOPLE

Having considered briefly the general nature of the physical resources of the State, we may next call attention to the number and character of the people whose efforts of over a period of nearly 80 years have developed a State that to-day ranks high in growth and achievement when compared with its sister States. The original settlers, 148 in number, led by Brigham Young to the Salt Lake City region had the distinct advantages of homogeneity of race, a more or less common New England ancestry, a knowledge of the practical workings of civil government, a large amount of originality and power of initiative, and a spirit of cooperation. All of these characteristics were brought together to serve a definite purpose under a leadership that seldom has been surpassed. From the beginning the leaders established the State's foundation on the sound policy of individual land ownership. Each man was encouraged to own and to operate his own farm. This policy of encouraging the individual has placed Utah third in rank in the United States with respect to the percentage of farms operated by the owners. Utah is surpassed in this respect by Maine and New Hampshire only. Tenantry is almost entirely on a cash basis. As we have just indicated, the population of Utah is homogeneous and is growing more so. According to the census of 1920 it was 98.3 per cent white, of which 85.8 per cent were native born and 12.6 per cent were foreign born. The remaining 7.1 per cent included 0.6 per cent colored, 0.1 per cent Chinese, 0.7 per cent Japanese, and less than 0.1 per cent of other nationalities.

Of the foreign-born whites more than one-fourth are of English descent, and, including the English, 70.4 per cent are of northwestern European stock. More than half of these have been in the United States 25 years or more, and only 5 per cent have been here less than 10 years; 61.2 per cent are naturalized citizens, and 7.1 per cent have taken out their first papers. For 1900, 1910, and 1920 the percentages of native whites in the total population were, respectively, 79.4



per cent, 81.2 per cent, and 85.8 per cent; and those of foreign birth were 19.1 per cent, 17 per cent, and 12.6 per cent. No other State in the mountain and Pacific divisions has so high a percentage of its people born within its own borders (69.8).

On account of the great natural advantages most of the people live in the Wasatch section. The five cities, Logan, Brigham, Ogden, Salt Lake City, and Provo, each having more than 5,000 population, are located in a fairly direct north-and-south line nearly 100 miles in length. Near the northern part of the line and around the two cities at the south of this line are grouped the 12 towns having from 2,500 to 5,000 population. One-twelfth of the population is found in these 12 towns. More than one-fourth of Utah's population is in Salt Lake City, an additional one-eighth is in Ogden, Provo, Logan, and Brigham. Thus 48 per cent of the inhabitants are urban and the remaining 52 per cent are rural, or dwell in the 120 incorporated places of fewer than 2,500 inhabitants each. Of the latter 100 or more are located on or near the Wasatch area. Sixty per cent of the people of the State reside in six counties of this comparatively narrow central section. This region averages 46 people to the square mile. In the large tract or territory west of the central valley and including the Great Basin there are fewer than two people to the square mile. In the northwestern section of the State there are generally from two to six persons to the square mile and in the southern counties less than two.

Homogeneity of population, distribution in small city areas and wide rural regions, and above all personal and group consciousness and character provide the basis for and condition the nature of the educational system developed in the State.

## OCCUPATIONS

### AGRICULTURE

From the beginning of the settlement of the State agriculture has been one of the major occupations of the people. The organized efforts of the pioneers developed an irrigation system that was the basis of agricultural success and became the model for irrigation projects outside the State. To-day the number of persons engaged in tilling the soil, forestry, and animal husbandry is 43,259 or nearly 29 per cent of the entire population; and the annual value of agricultural production, including that from livestock on farms and range lands, amounts to nearly \$65,000,000.

It is therefore evident if we consider the agricultural problem of Utah that its successful future development will be, as it has been in the past, to a large extent the result of the carefully organized effort of well-trained men. And as the difficulties of increasing the quantity and quality of fertile lands become greater, the more im-



portant to the State will be its program of agricultural education, whether it be from the standpoint of research, general instruction, and practical training, or from the standpoint of agricultural extension. The demands of agriculture will also make necessary proper training in agricultural engineering and irrigation.

#### MINING AND MANUFACTURING

Notwithstanding the early opposition to mining, during the first 20 years of Utah's Territorial life this opposition was gradually overcome as railroad transportation became available. In 1923 the mineral production of Utah was fifteenth in rank in the United States and the value of this production was \$86,221,000; and 10,117 people, or 6.8 per cent of the State's population, were engaged in mining.

The number of people engaged in manufacturing and mechanical pursuits for the same year was 33,594, or 22.5 per cent of the employed population; the number engaged in transportation and trade, 28,972, or 19.4 per cent of the employed population; the number engaged in public and professional services, 12,465, or 8.4 per cent of the employed population; and 20,794 in domestic and personal services and in clerical occupations.

According to these figures, which are also shown in the accompanying table, it will be observed that Utah stands high in the percentage of persons engaged in mining, in agricultural work, in transportation and trades, and in professional services. It is not so high, however, in its proportion of citizens occupied in manufacturing and mechanical pursuits as compared with the United States as a whole. Because an unusually high percentage of the people of Utah are less than 25 years of age (56 per cent as against 49 per cent for the entire United States), the per cent of the State's population engaged in gainful occupations is low (33.2 per cent as against the average of the United States or 39.4 per cent).

*Percentage of employed persons in Utah as compared with the percentage employed in the entire United States*

Occupations	Number of persons engaged in, in Utah	Per cent of employed population in Utah so engaged	Per cent of employed population of the United States so engaged
Agriculture, forestry, and animal husbandry.....	43,259	29.0	26.3
Extraction of minerals.....	10,117	6.8	2.6
Manufacturing and mechanical pursuits.....	33,594	22.5	30.8
Transportation.....	12,429	8.3	7.4
Trade.....	18,543	11.1	10.2
Public service.....	2,468	1.7	1.9
Professional service.....	9,997	6.7	5.2
Domestic and personal service.....	10,171	6.8	8.2
Clerical occupations.....	10,623	7.1	7.5
Total.....	149,201	100.0	100.0



In the light of these facts it is clear that the State is warranted in giving the same attention to the training of engineers as it has to agriculture, particularly those engineers who are competent to deal with mining, metallurgy, and power-plant problems. And as the future development of the State will rest largely on its transportation system, a number of men should be trained to be not only competent highway engineers but also to understand the economics of transportation and the interrelationship that should exist between its various forms.

A small proportion of citizens is engaged in manufacturing and mechanical pursuits as compared with the rest of the country. Inasmuch as there is an apparent limitation to the growth of agricultural pursuits, the youth of Utah will naturally look for other outlets where gainful occupation may be assured and their business talents properly developed. This situation indicates that education must of necessity provide for those who are to be the builders of the industries of the State.

#### EDUCATIONAL ACTIVITIES

✓ The fundamental and most important activity of a democracy is the education of its people. This principle has been recognized in every true democratic government that has been established. In Utah approximately 140,000 people, or 28 per cent of the entire population, is actively engaged in educational activities. Of these, nearly 135,000 are students and nearly 4,500 are teachers.

• The favorable position that the State has held in educational matters is one of just pride, but the maintenance of that position will become more difficult as the State grows and the organization of its various factors become more complex. Thus the program of education must look far in advance to meet the demands upon higher education of the State, to prepare adequately those who are to enter the growing professional and higher industrial positions, to meet the needs of elementary and secondary education, and to give an adequate foundation to all the children of all the people of the State in matters of knowledge, character, and patriotism upon which our institutions finally rest. To such a program Utah is already committed, and the survey of education reported in the following pages is but an index of the interest of the State in achieving the highest ideals of a modern State.

## Chapter II

### UTAH'S STATE SCHOOL SYSTEM

#### GENERAL CHARACTERISTICS OF THE SYSTEM

The constitution of the State of Utah sets forth in unambiguous terms the principle that the public educational institutions of the State belong to a single system. Section 2 of Article X reads as follows: "The public-school system shall include kindergarten schools, common schools (consisting of primary and grammar grades), high schools, an agricultural college, a university, and such other schools as the legislature may establish." This principle embodies the ideal toward which American State systems have been gradually moving. The schools of this country were originally local institutions in all respects, in appointment of teachers, in content of the curriculum, and in fiscal management. The lower schools were separate from the higher schools. Such a condition of local detachment of units of the educational system is uneconomical and undesirable from every point of view. It has been true throughout the history of American schools that pupils find transfer from elementary school to high school difficult, and transfer from high school to college even more so. Furthermore, unnecessary and even disastrous competitions often arise between separate schools when they are not united into a single system. It was evidently the desire of the framers of the Utah State constitution to avoid incoordination and waste by declaring for a single educational organization throughout the State from kindergarten through the higher institutions. Great foresight was exhibited in drafting the section of that instrument dealing with education, and the State can not do better than to aim at practical realization of the unity of education called for therein.

In thus stating its view in regard to a unified system the survey staff does not wish to be understood as believing that the various interests which have grown up in different institutions of the State can be summarily ordered to submit to central dictation. It would be easy to make a pronouncement in favor of an all-powerful State board of education. Such a pronouncement could be defended as in accordance with the spirit of the constitution, and it would provide in theory for immediate centralization and unification. It is not the



purpose to propose such a solution of the complex problems which face the State of Utah. There are institutional and local interests which must be coordinated with other interests in the State by a process of enlightened evolution rather than through the exercise of arbitrary central authority. The survey staff has, however, conceived its duty to be a discovery of some of the particular adjustments which in the aggregate will produce a unified educational system. These will be set forth in detail throughout this report.

At the present time there is not complete unity. The State board of education finds that it can not without serious friction bring under a single plan of operation the two institutions of higher learning in the State. The State university is empowered to certificate teachers, thus curtailing the authority of the State board at a very essential point. The statutes provide for a certain degree of authority over the high schools by making State grants to these schools contingent on approval. The elementary schools, on the other hand, receive State grants on a per capita basis, and the State board of education has no statutory control over the operations of this fundamental unit of the school system.<sup>1</sup> These and other examples of lack of coordination in the State educational system show that the intent of the constitution has not been fully realized in practical organization.

The people of Utah are and have been over a period of years devoted to education. The community as a whole has developed under adverse conditions an educational system which, while not without weaknesses, has far more advanced and progressive features than the systems of many older and richer States.

The State has advanced further than any other Western State in the organization of rural schools with a view to business and professional efficiency and in the consolidation of small schools into larger and more efficient ones. The rural schools of Utah approach, at least, the standard of the city schools of the State.

Scattered over the countryside are excellent school buildings which are used widely, and in most cases wisely, for community purposes. Generally, school districts provide for school purposes the most commodious and handsome buildings in the community. In the provision made for free textbooks for all children of the State; in the establishment by regulation, though not yet in practice, of minimum qualifications of acceptable standard for teaching certificates; in embodying into law modern ideas of a school-attendance program and its enforcement; in the provision of playgrounds and outdoor activities, and of a wealth of supplementary material for the lower grades in a large number of its districts; in the high percentage of men teachers found in the elementary grades as well as

<sup>1</sup> Except nominal requirement that school be maintained a minimum of 20 weeks.



in the high schools—in all these as well as in other activities which need not be enumerated here but which will be referred to in other parts of this report Utah has been decidedly progressive in framing the plan of a school system.

It is believed by the survey staff that the greatest weakness has been failure to realize on the resources of the system. Sincerity in the desire to establish schools for the children, honesty of purpose in providing efficient achievement are beyond question. Economy, educational and financial, may be attained not so much by radical changes in organization—though some may be necessary—as by the provision of skilled professional administration and vigorous leadership.

*The administrative organization.*—The State organization for elementary and secondary education is exceptionally compact and simple. Local districts are of three types, and each has its board of education and superintendent; there is 1 city of the first class; there are 4 cities of the second class, and 35 county districts of the first class. The 40 local administrative units are directed by the State board of education and the superintendent of public instruction. These, with the University of Utah and the Agricultural College of Utah, comprise the State system of public education. The 40 school districts in the State enroll 134,694<sup>2</sup> children, of whom 109,859 are elementary and 24,835 are high-school pupils. There are 4,181 teachers and principals.

#### THE STATE BOARD OF EDUCATION

*General provisions relating to the board.*—The constitution provides that the general control and supervision of the public-school system shall be vested in a State board of education constituted as the legislature may provide. The board as constituted under legislative enactment has nine members. Six are appointed by the governor for six-year terms. The State superintendent of public instruction, chairman, the president of the State university, and the president of the State land-grant college are ex officio members. Aside from the ex officio members the governor is at liberty to select among the citizens of the State six persons who in his judgment are best qualified to serve, two to be appointed each biennium. The board appoints and fixes the salary of a secretary. Appointed members receive expenses and per diem of \$4 for time actually and necessarily spent in performance of their duties. Custom in the State apparently sanctions the appointment on the State board of education of two educators in addition to the ex officio members. Since 1900 one or

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<sup>2</sup> Figures from the Utah State Department of Public Instruction, Sept. 1, 1926.



two representatives of the educators of the State have always been on the board, generally two, one selected from Salt Lake and another from the State at large. The board as at present constituted includes two appointed and three ex officio members who are engaged in educational work, five in a total membership of nine.

*Functions of the State Board of Education of Utah.*—The chief functions of the Utah State Board of Education as set forth in the statutes are: To have general control and supervision of the public-school system; to adopt rules and regulations to eliminate and prevent all unnecessary duplication of work or instruction in any branch or division of the public-school system and to require governing boards of such branches and divisions of the public-school system to put the same into operation; to promote the establishment of libraries and gymnasiums throughout the State; to appoint a secretary; to issue certificates and diplomas to teachers, supervisors, and superintendents, and set up standards and regulations governing their issue (with certain restrictions) and to revoke diplomas for causes stated in the law.

*The importance of administrative theory and progressive practice.*—The State administrative organization of Utah should be judged for constructive criticism in the light of practice in progressive States and of principles sanctioned by authorities on school administration. In so far as practice is in conformity with opinions of modern authorities on school administration and practice in progressive States, changes are undesirable unless experience has proved such practice unsound or inapplicable. When present practice is open to question and changes are contemplated, they should be made in the light of the best information obtainable.

*Composition of State boards of education.*—In 42 States there are State boards of education with some functions relating to the common schools. They are made up in the following ways: Ex officio membership, composed of State officials, usually including the governor and the State's chief school officer, and ex officio education officers, as presidents of higher institutions. In some cases the law provides that the board shall include one representative who is a city superintendent, a county superintendent, or one who holds a similar position; membership confined to persons not engaged in educational work; members who may or may not be engaged in educational work; and various combinations of the above. The chief State school officer is a member of the State board of education ex officio in 35 States; other State officials are ex officio members in 22 States (most of which are included in the 35 above). In 11 States the State boards include some members engaged in educational work; in 4 States persons engaged in educational work are excluded



from membership; in 26 States members may or may not be engaged in educational work.

The tendency in progressive States in which changes have recently been adopted or contemplated, and in cities, counties, and other local units, is toward a board of education made up wholly or largely of laymen. Authorities in school administration sanction this practice. The functions of the State board of education are largely legislative and judicial.<sup>3</sup> The board should, therefore, employ educators as expert advisers to formulate and recommend educational policies on which the board acts. There is no need that professional educators be members of the board. Ex officio membership, whether of persons holding civil or educational positions, is generally unsatisfactory. The major interest of such members is in the duties for which they were selected and not in the activities of the board. Ex officio board membership often becomes a burdensome addition to the members' major work, to the extent that such a member resents giving to it the time and effort necessary. Responsibility for policies of an ex officio board is not definitely placed. Its members are generally responsible to the electorate or the appointing officer for their major job but not primarily for their action as members of the board of education. Rarely is an official removed from the board or defeated at the polls because of his activities as ex officio member of a board of education. His continuance in all probability depends upon the manner in which he performs the duties of the major office to which elected or appointed.

On the other hand, a board made up of lay members elected or appointed for the purpose of managing the public school system and responsible primarily for that work, familiar with educational ideals of the State, its financial resources and its social and educational needs, is, other things being equal, eminently satisfactory. There is general agreement among authorities in school administration that the appointment of the State's chief school officer should be a function of the State board of education. He should be the executive officer of the board, assuming responsibility for recommendation of all educational policies but should not be a voting member of the board.

*Methods of appointment.*—In 33 States some or all of the members of State boards of education are appointed or elected (includes States in which the board is made up of ex officio and appointed members). Power of appointment is usually vested in the governor, subject in some cases to approval by the State senate. In three States the legislature selects the board, in one State the board is elected by popular vote, and in one appointment is left to the State

<sup>3</sup> See p. 13.



chief school officer. In a few States appointment is made in part by the governor, in part by certain educational boards, and in one State in part by the senate.

While the tendency in selection of members of State boards of education is toward appointment by the governor, two methods of selection, (1) appointment by the governor, and (2) election by the people, receive the approval of authorities on school administration. The first method, appointment by the governor, has these merits: (1) It centralizes full responsibility for all the departments of public service, including the management of schools, in the executive head of the State. This tends to unity and economy in administration. (2) It protects the board from undue political influence. Selection is often restricted to an eligible list or limited in some other manner. The advisability of the governor being a member of the board he appoints is doubtful.

Election by the people is favored by many authorities on school administration because (1) it places responsibility definitely in a group of persons elected specifically for one purpose, namely, that of having general charge of schools; (2) it represents a direct expression by the people of their wishes in the management of school affairs more nearly than appointment; (3) it follows the general custom of making those entrusted with legislative functions directly responsible to the people. It has, however, the disadvantages of political campaigning and the difficulty of influencing unselfish citizens to become candidates.

When board members are appointed by the governor he should have power to remove them as a protection against inefficiency or dissension in the board. Appointment should be representative of the State at large rather than sectional and of the most intelligent opinion of the State as to educational policy.

*Term of service.*—Present practice in the United States, as well as accepted theory, favors State boards of education composed of from five to nine members, each of whom holds office for a term of from five to nine years. Retirement should be so arranged that a majority of the board remains constant, one member retiring each year or two or three each alternate year. The smallest boards as now constituted are those which are composed of ex officio members. The term of office of such members is fixed by law and ranges from two to four years; members usually retire simultaneously. This may be regarded as a passing type. In 25 of the 42 States which have State boards of education the number constituting the board ranges from 7 to 13 members. Boards of this size, with continuity of service provided, are generally considered satisfactory in size for working efficiency. Neither too small nor too large a board is desirable.



Frequent changes on a State board of education, especially changes affecting a majority of the board, are particularly unfortunate. There should always be a sufficient number of hold-over board members to orient new ones and to insure continuing educational policies.

*The functions of State boards of education in the United States.*—In recent years there has been rapid development in establishing State boards of education as the administrative heads of State school systems. The movement continues to gain ground. In all but six States there are boards with some general educational functions. In four of these States the boards have as their only function the administration of vocational-education laws. In one the State board has charge of State institutions of higher learning; in the other, of normal schools.

The powers and duties of State boards in the 42 States vary from practically none in a few to complete control of the educational system in others. The present tendency is to give State boards a larger number of and more important functions. Naturally the composition of the board influences the functions assigned or assumed. An ex officio State board of education made up of State officials, as the secretary of state, attorney general, and the like, is not as apt to be assigned important educational duties as is a lay board appointed solely for the purpose of managing the State school system. Whatever the functions in the State board of education are, they should be definite and set forth in the law.

The following principles governing functions of boards of education are applicable whether the boards be State, county, district, or city:

A board for school control for a city school district should be distinctively a business board, closely analagous to a board of directors for a business corporation.

The direction of the educational affairs of any large city has to-day become so important and so technical, and now involves such a degree of expert knowledge and necessity of adjustment, if the best results are to be obtained, that no board of laymen, however worthy or willing, is any longer competent to handle the details of the work of school organization and administration. These should be turned over to competent officers, and the board should confine its attention to the larger features of the administrative problem.

These larger features relate, first and most important, to the selection, from time to time, of the executive officer or officers upon whom the board is to depend for advice, and for the execution of its policies; to the determination, after listening to the recommendations and the advice of its executive officers, of the educational and business policies for the school system.

Proper city school organization and management call for a clear separation of the work of school control into legislative, executive, and inspectional functions. All sound theory, and the results of both business and educational administrative experience, call for a clear separation of legislative and executive functions. It is the prime business of the board of school control to hear



reports, to listen to the advice of its executive officers, and then to legislate; it is the prime business of the executive officers to execute the legislation enacted, and to report the results to the board; and it is the function of the board in turn to judge the results of its policies and the work of its executive officers by inspecting the results obtained.\*

It is generally agreed by authorities in school administration that the functions of boards of education, appointed or elected, are largely legislative and judicial in nature; that among the most important duties of a State board of education are: (1) To determine educational policies for the State school system; (2) to have general oversight and control of the public schools of the State; (3) to select the chief State school officer who becomes its executive officer, and to determine his duties and the functions of the State department of education under his direction; (4) to adopt regulations governing education in the State concerned with such matters as school buildings, qualifications of teachers, selection of textbooks, school records, and reports, courses of study, etc.; (5) to have control of or to establish cooperative relations with teacher-training institutions conducted by the State.

*Compensation of State board members.*—Neither practice in progressive States nor authorities on school administration sanction the payment of salaries to members of State boards of education. The positions should be regarded as places of honor in which eminent citizens have an opportunity to render services to their State. The general acceptance of this conception of membership on State boards of education is shown by the fact that of 33 States in which other than ex officio members serve on State boards only 2 provide a salary large enough to be worthy of consideration. The situation concerning compensation in the 34 States is here shown:

*States in which State board members receive expenses only.*—Arizona, Arkansas, Connecticut, Kansas, Maryland, Massachusetts, Montana, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia, Wyoming—14 States in all.

*States in which State board members receive both a per diem and expenses.*—Alabama, California, Delaware, Indiana, Louisiana, Michigan, Minnesota, New Mexico (per diem and mileage), Oklahoma, South Carolina (per diem and mileage), Tennessee, Utah, Vermont, Washington, Wisconsin—15 States.

*States in which State board members are paid a salary.*—Georgia (\$250 per annum and expenses not exceeding \$200 for the 4 appointed members), Idaho (\$100 per annum and expenses), North Dakota (\$3,000 and traveling expenses), West Virginia (\$1,000 and expenses)—4 States.

*Summary of administrative theory and good practice.*—According to authorities on school administration the State board of education, like the city board, should be a lay board representing the

\* Taken from "Supplemental report of the organization and administration of school district No. 1 in the city and county of Denver," by Ellwood P. Cubberley, professor of education, Leland Stanford Junior University.



larger educational policies of the public, delegating the professional side of education and the administration of its general policies to its appointed executive official—the State superintendent of public instruction or commissioner of education—and to the heads of the several higher educational institutions (when such institutions are under its supervision). The board should be composed of from five to nine members appointed by the governor generally with the consent of the Senate, the terms of office to be five to nine years, one member to retire each year, or two in each biennial period, thus perpetuating the board's policies and giving it stability and a degree of permanency. Vacancies should be filled by the governor. The appointment should be for absolute worth and without regard to occupation, party affiliation, or similar considerations, and should be representative of the State at large and its most intelligent educational opinion. The members should serve without remuneration except for a reasonable per diem and actual traveling and other necessary expenses. The maximum number of days for which such per diem may be paid should be fixed by law.

*The situation in Utah judged by approved practice and theory.*—In method of selection (by the governor of the State), in size (nine), in assignment of wide responsibilities by the legislature, in allowance of travel and per diem rather than salary to members practice in Utah relating to the State board of education is in line with that in progressive States and in conformity with authorities in school administration.

In composition, length of term for which members are appointed, in indefiniteness of functions as set forth in the statutes, and authority to enforce regulations, practice in Utah is not in conformity with modern administrative theory and approved practice of boards of education in progressive States, cities, and districts.

Five of the nine members of the State board of education in Utah are engaged in educational work—too large a proportion in the opinion of the survey staff. The board should employ educational experts to advise it as to educational policies, but should itself consist wholly or largely of laymen. No essential purpose is served by the presence on the board of the president of the university and the president of the agricultural college as ex officio members. Since the board is now charged with coordinating the work of the two institutions over which these two members preside, their presence on the board, acting in a double capacity, reviewing as board members their own activities in their respective capacities of presidents of the two higher institutions, creates an anomalous situation which may easily become an embarrassing one.

*Clearer definition of functions needed.*—The functions of the State board of education as set forth in the statutes are sweeping but



indefinite, with corresponding indefiniteness in their interpretation and practice. Authority for carrying out the duties assigned is sometimes wanting. There is at least a possibility that this situation may result in one of two extremes in interpretation and practice. A board so empowered may assume too great authority and become autocratic or it may become lax in exercising its legitimate and necessary functions because of the lack of definite authorizations. The law recently passed requiring the State board of education to eliminate duplication in institutions and systems illustrates the point. Each of the two higher institutions which would be concerned if the provision of the law were carried out is under direct management of a board other than the State board of education, with full authority in management, including the formulation of courses. The State board of education would undoubtedly find difficulty if it attempted to interpret and enforce the law literally.

The State board of education is intrusted with "general control and supervision of the public-school system," another example of large but not well-defined responsibility. That the board does not specifically exercise much authority over the school systems of the several districts of the State is shown by the different standards maintained, as pointed out throughout this report. It exercises more authority over high schools than elementary schools, due to the fact that it is specifically authorized to establish standards, including length of term, for high schools, to inspect them at least once a year, and to withhold State grants from schools which fail to comply with regulations. Elementary schools, on the other hand, share in the State funds on a scholastic per capita basis, regardless of standards maintained.<sup>5</sup> If the State board were empowered to set up and maintain standards for all schools and funds were placed at its disposal to aid in the enforcement of its regulations, the board would be able to exercise the general control and supervision intrusted to it by law and constitution, which it has not now the authority to enforce.

Reasonable freedom, where such freedom is desirable, is not incompatible with definiteness in placing responsibility and authority in the enforcement of laws and regulations concerning the management and control of a school system. There are responsibilities in which freedom of action is desirable. Formulation of rules and regulations concerning certification of school officers is an example. Full authority to make and enforce such regulations should be vested in the State board of education, but the board should have considerable freedom in determining standards and in changing them from time to time as conditions warrant.

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<sup>5</sup> Except nominal requirement that school be maintained a minimum of 20 weeks.



*Term of service.*—The term of service of State board members is short. The nature of the legal provisions now governing the appointment and term of members of the State board of education prompted an investigation of actual terms served by board members from 1900 to 1926. Table 1 shows the length of term of 13 *ex officio* and 20 appointed members who served during the years indicated. If the general principle were followed that the board be made up wholly or largely of lay members, their terms should be at least as long as those of *ex officio* members. The table shows the opposite situation. Median length of term of *ex officio* members is 5 years; of appointed members, 3 years; the averages 6.2 and 4.2 years, respectively; 14 of the 20 appointees served 4 years or less; 9 appointees, nearly half the total number, served 1 or 2 years.

TABLE 1.—Number of persons serving specified periods on State board of education, 1900-1926

Years served	Members ex officio	Members appointed	Both	Years served	Members ex officio	Members appointed	Both
1.....	3	4	7	13.....	0	0	0
2.....	0	5	5	14.....	1	0	1
3.....	0	4	4	15.....	0	0	0
4.....	2	1	3	16.....	0	0	0
5.....	3	0	3	17.....	1	1	2
6.....	0	1	1	18.....	0	0	0
7.....	1	1	2	19.....	1	0	1
8.....	0	0	0				
9.....	0	2	2	Total.....	13	20	33
10.....	1	0	1	Median term in years	5	3	3½
11.....	0	1	1	Average term in years	6.2	4.2	5.5
12.....	0	0	0				

Number of members of State boards of education

Number of members	States	Number of members	States
3.....	6	9.....	3
4.....	2	10.....	2
5.....	5	11.....	2
6.....	4	12.....	1
7.....	10	13.....	1
8.....	6		

TABLE 2.—Number of terms ending and beginning in each of seven governor's terms

	A 1901-1904	B 1905-1908	C 1909-1912	D 1913-1916	E 1917-1920	F 1921-1924	G 1925-1928
Terms ending during each gov- ernor's term:							
Ex officio.....	1	1	0	3	2	2	
Appointed.....	3	0	1	1	4	4	
Terms beginning each gov- ernor's term:							
Ex officio.....	0	1	0	3	2	2	
Appointed.....	4	0	1	0	10	3	

Figure 2 indicates by continuous lines the length of service of each of 21 individual board members and shows the changes on the board during each of several gubernatorial administrations represented by spaces marked A, B, C, D, E, F, and G, the latter the unexpired term of the present administration. Heavy black lines separate the gubernatorial terms. The number of terms

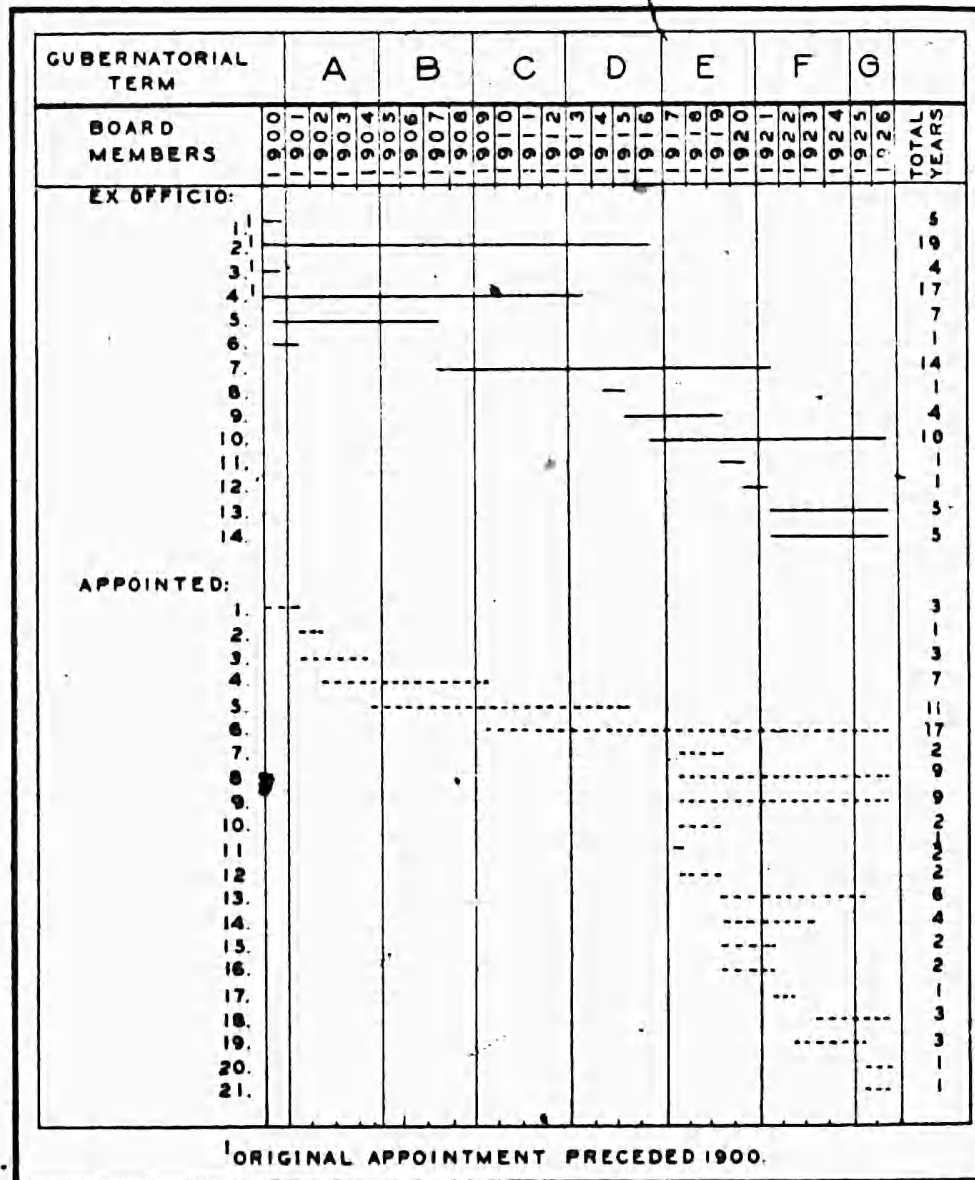


FIG. 2.—Length of service of members of State board of education, 1900-1926

ending and the number beginning are not always the same, owing to vacancies occurring by reason of resignation, removal, etc. During each of three of the six full gubernatorial terms shown in the diagram, not including the present administration, half or more of the full board membership was changed. The possibility of changing enough members of the board to result in complete changes



in educational policies under the administration of a governor, particularly of one who serves two terms, is apparent from the graph and table.

*Recommendations.*—To the end of realizing unity of purpose and action, and a higher degree of efficiency in the State school system and of placing it in line with progressive States in school administrative practice, the survey staff recommends that appointment of the State board of education by the governor be continued; that the board consist of nine members, each appointed for a period of nine years, one member retiring each year; that it be made up in larger measure than at present of citizens who are not professional educators actively engaged in educational work. If the presidents of the university and of the agricultural college remain on the board, additional educators should not be appointed. The State board of education should employ educational experts, but the board itself should consist wholly or largely of laymen.

The practice of providing a per diem and necessary expenses for the State board of education is a good one and may well be continued. Membership on education boards is an honorary rather than a salaried position and should be so considered by good citizens.

The functions of the State board of education should be clearly and definitely stated in the law, and interpretation of the law should be set forth in the regulations of the board itself. The board should be fully empowered to adopt and enforce all regulations necessary to the full realization of its legal functions, including control of the disbursement of certain State funds provided under legislative enactment, which would enable it to inspect schools and to demand compliance with standards before grants are made, and including control of State funds specifically granted for the equalization of educational opportunities.

The State board of education if constituted as recommended should be intrusted with selection and appointment of the State chief school officer, and on his recommendation of his assistants in the State department of education; it should have power to create, abolish, modify, and maintain such positions as may be necessary for the efficient administration of the State school system; to establish policies concerning it; to authorize by-laws, rules, or regulations needed for the direction and management of the schools; to act as the State textbook commission and to appoint such committee or committees as may be necessary to select textbooks for the State school system, of which committee the State superintendent should be chairman; to authorize courses of study to be given in the schools and to approve the content of such courses; to delegate to the State superintendent the functions of the executive officer of the board and



to authorize him to initiate and carry out such functions as it deems proper in the conduct of his position; to perform such other duties as may be provided in the statutes or become necessary for the good of the schools, including reorganization of the State department of education as recommended in this report.

### THE STATE SUPERINTENDENT

The office of the State superintendency of schools has an interesting history in Utah. Since 1851 it has been a continuous and separate office, although Utah was not admitted as a State until 1896. With the exception of California, it is the oldest State superintendent's office in the Western States of which this is true. In only nine States was it preceded as such in point of time. These States are: Wisconsin, Rhode Island, New Hampshire, Michigan, Massachusetts, Louisiana, Kentucky, Iowa, and California. Utah is the only State which temporarily resorted to appointment of its State superintendent by a chancellor of a State university or by the supreme court. The occupant of the position was appointed for a time by the chancellor of the University of Deseret, and later, from 1887 to 1896, was appointed by the supreme court of the Territory.

The State superintendency in Utah is a political office. The superintendent is elected at the regular general political election, as are other State officers, for a term of four years, at a salary of \$4,000 per annum. Qualifications as set forth in the law are nominal and have little bearing on the securing of an individual competent to lead the State in its educational policies. The requirements are that the State superintendent be a qualified elector; have been a resident of the State for five years preceding his election; shall have attained the age of 30 years, and hold a certificate of the highest grade issued in some State or be a graduate of some reputable university, college, or normal school. Fortunately for Utah, State superintendents with far higher qualifications than the legal provisions necessitate have usually been selected.

The duties of the State superintendent as defined in the law, like those of the State board of education, are general in character. He is charged with the administration of "the system of public instruction and the general superintendence of the business relating to district schools of the State and of the school revenue set apart and provided for their support, and shall have power of investigation of matters pertaining to the public schools." Specific duties set forth in the law are concerned with the disbursement of funds, the preparation and transmission to school officials of forms and blanks for reports, meetings with school officers, advising teachers, lecturing to institutes, advising with school officials, and the preparation of a biennial report.



Judged by statutory provisions concerning the selection, salary, qualifications, and functions assigned to the chief State education officer the people of Utah underestimate the importance of this official and of the department of education under his direction. In Utah is not unlike many other States, particularly the surrounding Western States. The old idea of the office as a clerical and statistical one which can well be political rather than professional in character—in the sense that a city superintendency or the presidency of a State university is professional—still holds in many States.

There is developing in the United States a new and enlarged conception of education, and with this new development a new importance attaches to the State's chief educational officer. The type of educational leadership called for requires ability to administer the manifold problems of modern school organization and administration generally, special educational problems such as industrial and vocational education, school sanitation, educational legislation, interrelation of the elementary and high schools, etc. The State superintendent under the new régime should be removed as far as possible from the influence and interference which arise through party politics or other political forces within the State.

#### IDEALS AND PRACTICES RELATING TO THE STATE'S CHIEF SCHOOL OFFICER

*Selection of State chief school officers.*—To-day there are three methods of selecting the chief State educational officers followed in the United States: (1) Election by the people; (2) appointment by the governor; (3) appointment by a State board of education. The present tendency is toward appointment by the State board of education; popular election as a method is practically static. Appointment by the governor is losing prestige. Election by the general assembly, formerly a popular method, has not been used for several years.

Thirty-three States fix the method of selection in their constitutions. Of these 31 stipulate election by popular vote and 2 provide for gubernatorial appointment. Of the 15 States which have statutory provision only for the method of selection, 8 provide for appointment by a board; 2 additional States, Wyoming and Idaho (in which there is a constitutional provision for election of State superintendents), have provided for commissioners of education appointed by State boards of education; 4 provide for gubernatorial appointment; and 3 still elect by popular vote. Thus it appears that where constitutional provision does not hamper, the legislatures have tended to take the office out of politics by providing for appointment by State boards of education or by the governor.



Appointment by boards has developed almost wholly within the past few years.

The elective method of selecting school officers is not considered one calculated to get the best results. Progressive States are looking toward a change to a more scientific method of selection, usually appointment by boards of education. This method has been found satisfactory in the selection of city superintendents, presidents of universities and colleges, and in many progressive States (of which Utah is one) county or county-district superintendents. It is recognized that the State superintendent of schools should be a technical expert removed from politics and political entanglements. If trained leadership of a high type is to be secured for developing a State's school system, its superintendents should be selected in a manner that appeals to qualified persons. The selecting boards should not be hampered with undue restrictions as to salary and tenure, as they are when these are fixed by statute. It is customary in the selection of city superintendents, and in many States in the selection of State superintendents (or commissioners), for selecting boards to investigate available persons from outside the city or State. The broader the field of available candidates the better the possibilities of selection of a man or woman of wide experience, superior ability, and high educational qualifications. Election at large, which is confined to residence within the State, narrows the field of selection.

There is general agreement that political offices are usually uncertain in tenure, restricted in salary, and subject to fluctuations which have little connection with ability to conduct an office in which technical or professional work is carried on. Tenure of office in a State superintendency, as in other educational positions, should be during good service rather than for a specified term.

The appointive method of selecting State chief school officers, as of similar educational officers by boards of education, has proved the most satisfactory one for securing and retaining educators of eminent ability and reputation. Among the States in which the chief State school officer is appointed by a State board of education are the New England States,<sup>1</sup> Maryland, New York, and Minnesota. In such States it is and has for some years been customary to select chief school officers because of eminent educational qualifications previous experience in important positions, and conspicuous educational service. In general, they serve long terms. Some idea of the quality of chief State school officers selected under the appointive system can be gained from the following facts concerning a few of them. They are from "Who's Who in America." The names and States

<sup>1</sup> Massachusetts: Appointment by State board of education until 1919 when law changed, vesting appointive power in governor.



represent a random selection. The qualifications are reasonably typical of those of chief State school officers in other States in which the same method of selection prevails.

Hillegas, M. B.: Appointed commissioner of education of Vermont; served from 1916 to 1920. Ph. D., Columbia; LL. D., University of Vermont. Held educational positions of eminence, including that of editor of the United States Bureau of Education; assistant professor, associate professor, and professor of education of Columbia University.

Graves, Frank P.: Commissioner of education and president of the University of the State of New York; appointed in 1921. Degrees A. B., A. M., Ph. D. from Columbia University; Litt. D., Heidelberg U., LL. D., Oberlin. Professor in a number of colleges, president of the University of Wyoming; president of the University of Washington; dean, School of Education, University of Pennsylvania.

Smith, Payson: Appointed State commissioner of education of Massachusetts July, 1917; A. M., LL. D., University of Maine; Litt. D., Bates and Bowdoin; instructor in Greek, Westbrook Seminary; principal of high school, Canton, Me.; superintendent of schools, Canton and Auburn, Me.; superintendent of public instruction of Maine, 1907-1917.

Finley, John H.: Commissioner of education of New York, and president of the University of the State of New York, 1913-1921; A. B., A. M., LL. D. from the University of Wisconsin, Princeton, Dartmouth, Columbia, Brown, and other institutions; president of Knox College; professor of politics, Princeton University; president of the College of the City of New York; at present editor of the New York Times, special lecturer at Harvard, and elsewhere.

Chief State school officers appointed by State boards of education usually serve long terms. A few examples will illustrate this. In Connecticut there have been since 1883 two chief State school officers, a secretary of the State board of education who served from 1883 to 1920, when the present commissioner of education was appointed. In Massachusetts since 1909 there have been two commissioners of education, both of whom were selected by boards of education. In New York there have been three State commissioners of education since 1900. In Maryland two State superintendents appointed by State boards of education have served since 1900; in Minnesota, two commissioners since 1909; in New Hampshire, two since 1905; in Vermont, three since 1905.

Superintendents appointed in this manner are frequently selected from outside the State in which they are to serve. The State board of education of Connecticut, in making the last appointment, secured the services of an educator who had had experience in the State department of education in another State. The present commissioner of education in Massachusetts was serving as chief State school officer of another State at the time of his appointment. His predecessor was selected while holding a professorship in Columbia University, New York. New York and Vermont are other States



in which appointment is made by State boards of education in which recent chief school officers have been selected from other States.

*Salaries of chief State school officers.*—The salary which a State is willing to pay its chief State school official is one reliable index of the State's conception of the importance of the office. The amount of salary measures roughly the caliber of those who occupy the position. A consistently low salary, other things being equal, can not be expected to draw as high a rate of ability as a consistently high salary.

As might be expected, salaries of chief State school officers increase in amount as the importance of the State education office becomes better understood. Significant increases have been granted in several States during the past eight years.<sup>1</sup> So far as salary is concerned the position now is on a par with superintendencies in large cities, presidencies of universities, and similar educational offices in a number of States. Among them are: New York, Pennsylvania, Connecticut, New Jersey, and Massachusetts. A study of salaries of chief State school officers of the United States, 1896-1923, shows a consistent increase during that period.<sup>2</sup> From 1919-1923, 17 States granted significant increases in salaries, varying in amount from \$500 to \$4,000, paid to these officers. The lowest salaries are found where popular election prevails and highest where the appointive method is followed. When a salary is fixed by statute or by constitution it can not be adjusted to the ability of the appointees unless the law or constitution be changed. When it can be fixed by a board, adjustment can readily be made.

TABLE 3.—Distribution of the salaries of the chief State school officials in 1923, according to the different methods of selection<sup>1</sup>

Salary groups	Popular election	State board appointment	Gubernatorial appointment	Total
\$1,800-\$2,499	2			2
\$2,500-\$3,199	10			10
\$3,200-\$3,899	5		1	6
\$3,900-\$4,599	8	1		9
\$4,600-\$5,299	8	2	1	11
\$5,300-\$5,999				
\$6,000-\$6,699		2	1	3
\$6,700-\$7,399				
\$7,400-\$8,099	1	1		2
\$8,100-\$8,799				
\$8,800-\$9,499		1	1	2
\$9,500-\$10,199			1	1
\$10,200-\$12,000		1	1	2
Total	34	8	6	48
Median salary	\$3,800	\$6,000	\$7,750	\$4,250
Range	1,800-7,500	4,500-12,000	3,000-12,000	1,800-12,000

<sup>1</sup> For Idaho and Wyoming the salaries of only the superintendents of public instruction are included in the tabulations.

<sup>2</sup> U. S. Bu. of Educ. Bul., 1924, No. 22.



TABLE 4.—Salaries of chief State school officials in 1896, 1909, and 1923

All States	In 1896	In 1909	In 1923
Arithmetic mean.....	\$2,273	\$2,970	\$4,834
Mode.....	2,000	3,000	5,000
Range.....	{ 1,000- 5,000	{ 1,800- 7,500	{ 1,800- 12,000

*Functions of chief State school officers in the United States.*—Functions of the chief school officials in the various States are specifically given in the constitution or statutes, implied in the law and therefore assumed, and delegated by State boards or other officials having authority to do so. They are numerous and varied. Among the most important are those relating to courses of study, school libraries, general school standards, school buildings, textbooks, teachers and their certification, school finances, publications, State institutions, other school officers, membership on boards, selection of staff of the State department of education.<sup>7</sup>

As with State boards of education there is wide variety among States in duties legally assigned or delegated. The tendency is to give the chief State school officer greater functions, especially of supervising and inspectorial character. Many States introduce the laws defining his functions with the phrase "he should have general supervision over the schools of the State." Legislatures generally in legislating functions for the office have been liberal in interpreting "general supervision," especially with regard to elementary schools. The laws of some States specifically vest in this officer "general supervision over all schools from the common schools through the university;" while others assign "general supervision over the common schools of the State." The requirement that the State chief school officer visit all counties or districts annually or once during his term of office is not uncommon. He is usually charged with the promotion of education in every way possible.

*Regulations governing the State superintendent of public instruction in Utah not in conformity with modern ideals and progressive practice.*—In statutory regulations governing the term, salary, and qualifications of the State superintendent of public instruction, in continuing to elect this officer by popular vote in the same way and at the same time—that is, at regular political elections—as other State officials are elected, practice in Utah is not in conformity with that advocated by authorities on school administration and followed in many progressive States.

The State superintendent and his office share in the deleterious effects of the weaknesses of the Utah law governing the functions of

<sup>7</sup> For complete information see Bu. of Educ. Bull. 1924, No. 5.



the State board of education to which reference has been made, particularly those concerned with setting up and maintaining educational standards in the different school systems of the State. The State superintendent should be the executive officer of the State board of education, executing the board's policies throughout the State's educational system. When the board lacks authority, or its functions are indefinite, these weaknesses are reflected in the State superintendent's office. The survey staff was particularly impressed with the need of more vigorous and specific educational leadership on a high professional plane. The results of this deficiency were apparent throughout the schools of the State, in administration and supervision, in teaching, in the general lack of a definitely organized and directed educational program for the State school system and its subsidiary systems.

In pointing out what it believes to be the main essential of the State's highest educational office, namely, increased and improved educational leadership, the survey staff wishes to avoid creating in the minds of any the impression that the staff undervalues the work of the State department of education. The fact is that it has a keen appreciation of the leadership carried on from the department now and for a number of years. It realizes that this leadership in Utah is above the average for States in which the superintendency is an elective office. The failure which the staff believes exists is due in large part to weaknesses inherent in the system, to divided responsibilities and indefinite authorities, to the inevitable limitations of a small staff, and particularly to those considerations which always impair an office constituted as is that of Utah—dependent upon political exigencies for effectiveness and continuity. The staff wishes to emphasize that suggestions made in this report are made because of a belief in leadership, not dictation, from the State department. Sufficient authority centered within the department is one prerequisite. It should also be endowed with a personnel which in size and quality can uphold the prestige of the office and of the superintendent as the leader in public education within the State.

If the State superintendent of public instruction and his office, the department of education, are to be a force in the educational affairs of the State, wider powers and increased authority should be delegated to him through statutory provision or by the reorganized board of education whose executive officer he should be.

He should be the accepted professional leader, with ability and power to set up and maintain educational standards for all the schools of the State. The recognized prestige which should attach to the State's chief educational officer, if this conception of his functions is realized, is fostered by association of the office with high edu-



educational qualifications; eminent educational service, of which the tendering of the office is an acknowledgment; adequate salary comparable with that paid other high educational positions in the State, and permanent tenure during good service. It is not believed that this kind of service can be secured, at least not in the degree which the best educational interests of the State demand, so long as there is indefiniteness and overlapping of authority; so long as the salary is lower than that paid several local superintendents in the State and the presidents of the State higher institutions of learning, and so long as political considerations may govern the selection and, to a certain extent at least, the actions of the superintendent after his election.

The staff has pointed out in this section some of the advantages of the appointive method of selecting a State's chief school officer by an educational board. A number of States have found it the most satisfactory way of securing and retaining educators of ability and attainment, and it is believed that Utah would find the method equally effective. In the opinion of the staff it will be difficult if not impossible to build up a State system in compliance with the recommendations of this report and to effect the reorganization of the State department suggested if the elective system of selecting the State superintendent is retained. Short and uncertain tenure and inadequate salary in themselves defeat this purpose. These will at least threaten the incumbent while the elective system continues.

The staff realizes the difficulty of changing the method of selecting a constitutional officer, as is the State superintendent of Utah. It is aware, too, that the State has not suffered as much from frequent changes in the State superintendency as have some other States which follow the elective system. Sentiment for continuing the superintendent in office during good service is widespread among the people. However, preceding the service of the incumbent, the State office was subjected to frequent changes for several years. In spite of the selection of a succession of qualified persons to fill the position, the educational interests of the State suffered from too frequent changes. The State should safeguard itself against a repetition of this experience which may at any time follow the same or other causes.

The staff commends the practice which some States follow, of seeking outside their own borders for qualified persons to accept the position of chief State school officer. In doing so it does not wish to be understood as recommending this as a universal practice in Utah. It may or may not be desirable. In this the State board of education, endowed with the power to appoint the State superintendent, should use its judgment. It should, however, be in a posi-



tion to do so, as are State boards of education in several States, if such action is for the best interests of the schools.

*Recommendations.*—It is the belief of the staff that the State of Utah would profit by a change in the mode of choosing the State superintendent. If the State board of education were strengthened as recommended in this report, it would become a very suitable agency for the choice of a superintendent expertly qualified to furnish leadership to the State education system. The board should be permitted to go over the State's borders (if it seems desirable) to select the State superintendent, and it should be free to offer any salary necessary to secure the services of the person it believes best fitted for the position. This would be going no further than the governing boards of the higher institutions within the State are now permitted to go and would be in line with good practice in the selection of other educational officers within the State at the present time.

If the recommendation that the State superintendent be appointed by the State board of education (made up as suggested in this chapter) does not seem possible of immediate adoption, it is recommended that consideration be given to the appointment of this officer by the governor. If that plan is rejected, the survey staff recommends most earnestly that the time of election of the State superintendent be rearranged so that voting will be absolutely distinct from other elections of State officers and that the office be made more attractive by an increase in salary and by a lengthening of the term to five or six years.

#### THE STATE DEPARTMENT OF EDUCATION

An efficient State department of education functions for the State educational system much as a city department, with its superintendent, supervisors, and staff, for a city school system, or as the executive office, with the president and council of deans, functions for a university. The personnel of the staff determines to a great extent the department's place in the school system. As advisers to the chief State school officer in establishing standards, in cooperating with and guiding local officials in the proper conduct of the schools, it is important that the staff be adequate in numbers, and have high educational qualifications and qualities of leadership on a plane similar to those of the chief State school officer and on a par with those of the best qualified school officers of the local school systems of the State. It is important to consider how Utah measures up to these requirements and how the activities of the department of education compare in number and efficiency with those of other States.

The State department of education in Utah is composed of the State superintendent, an assistant State superintendent, three gen-



eral supervisors, and one statistician paid wholly from State funds; four supervisors paid from State and Federal funds; four clerks, two paid from State funds and two from State and Federal funds. A detailed statement follows:

Officer	Salary	Fund from which salary is paid
State superintendent	\$4,000	State.
Assistant State superintendent	3,500	Do.
Supervisors:		
High-school inspector and director of vocational education	3,600	Do.
Intermediate	3,000	Do.
Primary	2,750	Do.
Civilian rehabilitation	3,000	Federal, one-third; State, two-thirds.
Trades and industrial education	3,000	Federal, one-half; State, one-half
Agricultural education	3,200	Do.
Home economics	2,750	Do.
Statistician	2,100	State.
	1,500	Do.
Clerks and stenographers	1,500	State and Federal.
	1,440	Do.
	1,200	State.

*Activities of the State department of education.*—The activities of the staff are indicated in part by the titles. There are three "general" supervisors responsible for the supervision and guidance of the general school work distinct from that of special subjects—in Utah, vocational subjects. Supervisors of these special subjects are paid in part from vocational funds and expected to observe certain regulations of the Federal Board for Vocational Education. The high-school inspector and director of vocational education is responsible for coordination of the work of the four supervisors of vocational subjects. The intermediate and primary supervisors are assigned supervision chiefly of the grades indicated. The former assumes supervision of junior high school grades as part of his work. In practice there is apparently not a well understood differentiation of work among the elementary supervisors nor a co-ordinated program for supervision. All of the State supervisors work directly with teachers rather than with local supervisors, to a great extent assuming the functions of local supervisors. The supervisors participate in institute work in the local districts, being responsible in a large measure for such training in service as the institutes provide for local teachers.

Inspection is a function of supervision concerned almost wholly with the high-school grades.

The State high-school inspector, the supervisors of trades and industrial education, of agricultural education, and of home economics education are concerned chiefly with work in the secondary schools and grades. The supervisor of rehabilitation is part-time supervisor of school library work, the latter a rather nominal position at the present time. The supervisor of agriculture will in the future spend part time as instructor in the State agricultural college.



The State superintendent is charged by law with the preparation of a biennial report of his administration of the system of public instruction, including a brief exhibit:

1. Of his labors, results of his experience and observations as to the operation of the public-school system and suggestions as to the remedy for imperfections;
2. Of the amount of school revenue and its general condition as to sufficiency or insufficiency;
3. Of such plans as he may have matured for the better organization of the schools and for the increase and economical expenditure of the school revenue;
4. A full statement of the condition and amount of all funds and property appropriated for educational purposes; the number and grade of schools in each county, and in each city of the first and of the second class; the number of children between the ages of 6 and 18 years in each county and in each city of the first and of the second class, with the number of such attending district schools, the average number of children that have attended district schools during the two years previous to July 1 of that year, the number that can read and write, the amount of school money raised by county taxation or otherwise, the amount expended for salaries of teachers and for building schoolhouses;
5. A comparison of the results of the two years then closing with those of the two years preceding, indicating the progress of public instruction, and as far as can be ascertained, the number and condition of private schools, academies, and colleges in the State.

In a large measure the work of the statistician is concerned with the collection and summary of statistics for this report, of general business routine of the office, and such incidental work of the office as is related to statistics. The supervisors also contribute to its preparation.

Twenty-eight States have a larger total enrollment than Utah, and the same number of States have a greater total personnel in their State departments. Two States have the same size personnel.

In the western group, four States have a larger total enrollment than Utah, three have a greater total personnel in the State department, and two the same; five spend more for upkeep of their State departments of education.

TABLE 5.—Rank of State departments of education in total personnel, official and clerical

Persons		Persons		Persons	
New York	313	Missouri	34	Delaware	18
Massachusetts	174	Idaho	32	Kansas	17
Pennsylvania	154	West Virginia	31	Oklahoma	17
Connecticut	62	Indiana	26	Arizona	16
Ohio	62	Nebraska	25	Montana	16
California	60	Georgia	24	Utah	16
Texas	58	Iowa	24	Colorado	15
Minnesota	49	North Dakota	23	Florida	13
Illinois	47	South Carolina	23	Nevada	13
New Jersey	46	Louisiana	22	Rhode Island	13
Michigan	41	Mississippi	22	Vermont	13
Alabama	40	Tennessee	22	Wyoming	12
Virginia	39	Arkansas	21	Oregon	11
Wisconsin	39	Maryland	20	New Mexico	10
Washington	38	New Hampshire	20		



*State departments of education in the United States.*—Information concerning size, cost of upkeep, salaries of staffs of State departments in the United States is given in Tables 5 to 7. The wide differences show that there is no universal nor even established practice in matters set forth in these tables. The size of the staff is determined by several things, among which are the size of the State, the population, the diversity of educational interests, the form of organization of the department, and the powers and duties assigned to it. Tradition and precedent are still strong influences in some States. New York has the largest department, with a personnel of more than 300; Massachusetts and Pennsylvania come next with 174 and 154, respectively. Utah, as would be expected, is among the States with small staffs and relatively low cost of upkeep.

TABLE 6.—Western State departments of education

State	Cost of State department itself		Total personnel of State department			Total enrollment			Salary of State superintendent
	Cost	Rank in United States	Rank in West	Persons	Rank in United States	Rank in West	Rank in United States	Rank in West	
Arizona.....	\$101,896	14	2	16	129	4	35	9	\$3,300
California.....	106,978	11	1	60	6	1	6	1	5,000
Colorado.....	15,300	38	10	15	32	7	27	3	3,000
Idaho.....	27,322	34	8	32	16	3	31	7	2,400
Montana.....	23,967	35	9	16	129	4	30	6	3,600
Nevada.....	29,600	30	7	13	33	8	38	10	3,000
New Mexico.....	44,407	25	5	10	38	10	33	8	3,000
Oregon.....	57,280	20	4	11	37	9	28	4	4,000
Utah.....	39,942	27	6	15	129	4	26	5	4,000
Washington.....	61,430	19	3	38	14	2	23	2	3,000
Wyoming.....									3,000

<sup>1</sup> Three States have this rank.

<sup>2</sup> Four States have this rank.

TABLE 7.—Number of States paying certain salaries to members of the staffs of the State departments of education in the 48 States<sup>1</sup>

Salary groups	Deputy or assistant	Chief clerk	Rural school supervisor	High-school supervisor	Director of vocational education	Supervisor of agriculture	Supervisor of home economics	Supervisor of physical education	Director of Americanization	Supervisor of teacher placement	Supervisor of trades and industry	Supervisor of teacher training	Statistician	Total
\$1,100-\$1,799.....		7				1	1	1		1		1	7	19
\$1,800-\$2,499.....	9	10	8	6		1	14		4	2		2	3	61
\$2,500-\$3,199.....	15	7	4	7	7	19	15	2	3	1	17	5	3	105
\$3,200-\$3,899.....	5	2	16	11	5	11	4	4		3	7	6	2	76
\$3,900-\$4,599.....	3	2	3	7	4	5		3	2		3	2		37
\$4,600-\$5,299.....	1	1	3	3	6	1		2			1	1		19
\$5,300-\$5,999.....			1	1	1				1			1		5
\$6,000-\$6,999.....	1				1									2
\$6,700-\$7,399.....	1													1
\$7,400-\$8,099.....	1													1
Total.....	36	29	35	35	24	38	34	12	10	7	32	18	18	326
Median salary	\$2,919	\$2,324	\$3,440	\$3,485	\$3,899	\$3,125	\$2,593	\$3,724	\$2,733	\$2,849	\$3,117	\$3,316	\$2,033	\$3,063

<sup>1</sup> U. S. Bu. of Educ., Bul., 1924, No. 5.

Of greater importance than comparisons of cost and size are comparisons of activities in which the different States engage through their State educational offices. While many progressive States are assigning more and more important functions to the State departments, in others they remain small and relatively unimportant. A recent study of State departments of education in the United States (U. S. Bur. of Educ. Bul., 1924, No. 5) finds that "the tendency to centralize and give more and larger functions to the office is one of the outstanding characteristics of present-day education."

Information concerning subdivisions established in State departments of education in the several States with at least one full-time person in charge is given in Table 8. The large number of States which have vocational education subdivisions is due no doubt to the subsidizing of these by Federal funds. Aside from these subdivisions, certification and rural education divisions are found in the largest number of States. Special measurements, attendance, pupil accounting, and educational statistics subdivisions are becoming more and more common in State education departments.

TABLE 8.—*Subdivisions of State departments.*

	States		States
Elementary education.....	14	Libraries.....	8
Rural education.....	33	Textbooks.....	7
Secondary education.....	40	Teacher certification.....	37
Vocational education.....	33	Teacher retirement.....	9
Trade and industrial education.....	37	Teacher placement.....	6
Agricultural education.....	39	Educational measurements.....	5
Home economics education.....	41	Attendance and child accounting.....	8
Negro education.....	14	Physical training.....	16
Normal and teacher training.....	15	Auditing and accounting.....	14
Industrial rehabilitation.....	22	Statistics.....	21
Americanization.....	6		

In addition to the subdivisions in the table, the following are found in several States: Adult education, buildings and grounds, child welfare, film censorship, geological survey, higher and professional education, music supervision, school and community betterment, school law, special education, State reading circle, supervision of school subjects, university extension, and visual education.

The educational council of the Ohio State Teachers' Association, after an extensive study, recommended a divisional organization for that State of 14 divisions as follows: Higher education, secondary education, elementary schools, rural schools, vocational education, uncompleted citizenship education, education and training for handicapped children, preparation and certification of teachers, child accounting and statistics, physical welfare or health education, survey and research, building and equipment, school support and finance, supervision of school subjects.



A report given at a meeting of the State chief school officers of the United States in 1920 sets forth an approved minimum staff and corresponding activities for an efficient State department for the State of Wisconsin. Forty persons, of whom 26 should be specialists, are advocated as a minimum staff. Both Ohio and Wisconsin are more populous States than Utah and need a larger staff. The lists are suggestive, however, especially as to kinds of activities State departments of education in the more populous States are expected to carry on. The staff and activities recommended for Wisconsin are as follows:

Supervisors of educational tests and measurements	2
Supervisors of rural schools	4
Supervisors of rural teacher training	1
Supervisors of grade work in cities	4
Supervisors of high schools	3
Supervisors of manual training	1
Supervisor of domestic science	1
Psychologists and supervisors of exceptional classes	2
Director of physical education	1
Supervisor of education of deaf and blind	1
Supervisors of village and graded rural schools	3
Supervisor of music	1
Supervisor of drawing	1
School architect	1
Clerical and statistical	14

*Conditions and needs in Utah concerned with the State department.*—It is not to be expected that Utah would rank among the States having large staffs or paying large salaries to its personnel. Salaries paid for educational work in Utah are relatively low. There is not, therefore, the wide disparity one would conclude from first examination of the salaries paid members of the State education department. However, the State of Utah, looking to the future of its educational system and considering the importance of the work assigned members of the technical staff of the State department, will find it necessary to raise salaries as it raises the general tone of the State department. While the salary of the State superintendent remains at the present level, salaries of the staff will in all probability remain as they are. Increases all along the line are desirable.

A number of important activities usually carried on in State departments of education are now wholly or partially neglected; that is, receive part-time service of staff members whose major responsibility is for other work. Among them are those concerned with health and physical training, educational statistics, research, school attendance and child accounting, supervision of buildings, of educational programs of superintendents, and in-service training for superintendents, supervisors, and teachers. Neither in size of



personnel nor specialized training and experience is the staff equipped for many of these and other activities commonly carried on by State departments of education.

The survey staff believes that a reorganization of the State department should be undertaken as soon as possible. Increase in the size of the staff is desirable, but even without additional numbers reorganization and coordination of functions would add to the efficiency of the department. Among the most obvious needs are: (1) Reorganization and strengthening of the supervisory functions (2) more aggressive professional leadership and direction of local systems; (3) provision for in-service training of superintendents and supervisors; and (4) research and educational statistics service.

1. *Reorganization of the supervisory service.*—Comparatively, there are too many special subject (vocational) supervisors. The bulk of the children are in the elementary school and enrolled in general courses in the high school, yet State supervisors of vocational subjects outnumber general supervisors. Results of unbalanced supervision are pointed out elsewhere in this report.

Supervision as now carried on in the State department indicates an entirely erroneous idea of the function of a State in this field of effort. The State supervisors (of elementary schools in particular) spend a large part of their time "substituting" for local supervisors in districts in which there are no local supervisors or an insufficient number. They work directly with teachers, visiting the schools, participating in institutes, giving demonstration lessons, preparing outlines for teachers, and in general doing the kind of work which local supervisors should do. However capable State supervisors may be, they can not do satisfactorily the work of local supervisors. For this type of work the supervisor should be constantly on the ground in direct and frequent touch with the teachers.

In the meantime the local supervisors are left practically on their own resources and without direction. Local supervisors need special in-service training in supervision; supervisory guidance and help from those with more expert knowledge than theirs; and a broader training and experience than they have had. The relation of the State supervisor to the local supervisor is similar to that of the local supervisor to the teachers. The responsibility of State supervision rightly conceived is to coordinate and raise the general level of local supervision. It is not that of trying to replace local supervisors.

State supervisors should be the direct representatives and agents of the State superintendent in the field. To them, superintendents, supervisors, and principals, rather than teachers, should look for guidance. The system of supervision set up by the State should



operate in the main as follows: From the State superintendent through the State director of supervision and State supervisors to district superintendents, from district superintendents and local supervisors to principals, and from principals to teachers. Naturally any officer should be able to go for special help to any higher officer through the next higher officer in the established series. But in the main the line set up should be followed.

2. *Leadership and direction of local officers.*—There is abundant evidence of the good work of the State superintendent and his department in the general interest in education on the part of the people of the State, in progressive legislation which resulted in the adopted system of administrative organization, and in securing a reasonable proportion of State support for local schools. There is a very apparent need for stronger professional leadership among school officials in general, superintendents and supervisors in particular. Local superintendents fail to correct obvious weaknesses (apparent to any trained observer) because they themselves do not recognize them as weaknesses for which they are responsible, and they have never been pointed out as such by superior officers. The staff were quite generally impressed with the readiness with which superintendents and supervisors responded to suggestions when weaknesses were pointed out and practical remedies suggested.

A few examples will illustrate the situation observed by all members of the survey staff. Nearly all superintendents visited recognized the need of more supervision, yet failed to avail themselves of resources at hand. Few principals supervise. They are full-time teachers. Yet they are paid salaries in addition to that paid other teachers in the same building who do the same character of work with the exception of minor duties generally concerned with building upkeep and discipline and with reports. In most cases the work of building discipline and record keeping could be apportioned among the teachers of the building. Many principals can not and should not supervise. The salary paid such principals, in addition to the regular teaching salary, might be more economically spent either by employment of supervisors or of principals trained for and given free time to carry on supervision.

Instances were noted also of supervisory principals doing excellent supervision in their own schools, which were small, and who had sufficient time to extend supervisory service to other schools in need of it. Little advantage of the ability of superior principals and teachers was taken by superintendents, in spite of their recognition of the need for supervision.

With a well-centralized administrative organization like that in Utah there would not be the wide discrepancies in standards in



quality of school facilities and practices which were observed if vigorous professional leadership and direction were exercised. In even the poorest type of administrative system occasional good schools will be found; real supervision, professional leadership, is recognizable by reasonable unity in facilities and procedure, at least to the extent of the observance of definite minimum standards. Wide diversities in standards among systems within a State or among schools within a system are usually signs of inadequate supervision.

Lack of authority or lack of aggressive use of authority is shown in the rather general failure adequately to enforce the certification laws. As far as information is available, no other State, certainly none with so compact an organization and with such progressive certification laws, employs so many uncertificated teachers. The exact number is not known. Estimates made for the staff differ. Undoubtedly the number is being greatly reduced year by year. However, superintendents, discussing the matter with members of the staff, as well as the circular letters they send out to teachers and principals, indicate that there are still a large number of teachers without certificates and that the local superintendents lack either the ability or the inclination adequately to enforce the certification requirements. The situation would be more excusable if there were any scarcity of teachers. Members of the staff have been informed that trained teachers to fill all vacancies are available. Failure to comply with the certification law seems inexcusable.

3. *Provision for in-service training.*—The survey staff is agreed that there is a very evident need of in-service training for teachers, supervisors, and superintendents. Educational forces are recruited very largely within the State. The danger of inbreeding and consequent self-complacency would probably be overcome by the wider contacts and increased knowledge coming from a high type of in-service training. Specialists from *without* as well as from within the State should be invited as frequently as possible for conferences and to give intensive courses of short duration, particularly to superintendents and supervisors, to supplement regular courses. In this connection it should be said that the summer schools held recently at the State university and college of agriculture have exercised a very apparent influence for good on teaching and supervising.

4. *Research and educational statistics.*—Information essential to the efficient organization and conduct of schools, to planning building programs, etc., should be collected, interpreted, and made available for practical use to superintendents through the State department of education. It is believed that Utah might have saved money and promoted school efficiency if, when consolidation was effected,



there had been in the State department a research division from which superintendents could have received data and advice on reorganization of their schools, building programs, school organization programs, curricula, and the like, fitted to the new plan of consolidation. Obvious and easily avoided errors in planning and locating buildings, in the establishment of many small high schools, and the like, costly not only in money but in the educational welfare of children, were observed by the survey staff in a number of districts. Enthusiasm, rather than scientific study of needs, is apparent in the consolidation and organization programs in several districts.

Certain school activities now carried on extensively are of doubtful value and should not be continued unless careful investigation proves their real value. The prevalence of half-day sessions in the lower grades is an example. The establishment of two schools side by side with different principals, each teaching full time but receiving principals' salaries, one for the elementary grades and one for the seventh, eighth, and ninth grades, housed in a separate building and called a junior high school, is another example. Unusual educational practices, of which these are examples, for whose continuance no reason is given other than established custom, may result in educational waste unless investigation proves their value.

Absence of information necessary as a basis for formulating intelligent educational programs is apparent throughout the State. Take, for example, so simple a matter as that of teacher turnover. The exact annual teacher turnover in Utah is not known either in the State department or in the higher institutions. Even local superintendents have no definite information on the subject. Special needs of the teaching and supervisory staff, the number of teachers who should be trained for primary positions, for junior high-school positions, for intermediate positions, for special subjects in senior high schools, and the like, are matters on which neither the State department nor the higher institutions have definite information. What are the prevalent causes of absence and nonattendance at school, the difference between absence and nonattendance, why children in the elementary and intermediate grades fail of promotion, are important questions for which at present there are no answers and which show the obvious need of the collection of educational statistics without which a modern educational program in organization, in curriculum adjustment, special classes, etc., can not be intelligently formulated and carried out.

The staff found an aggressive and growing sentiment for kindergartens in the State. There are none now outside of Salt Lake City. The constitution and the State laws apparently make ample pro-



vision for their establishment in other districts, some of which are not hampered by financial considerations or lack of building equipment. Definite and satisfactory information on this question is not now available to citizens interested, so far as the survey staff observed.

It is a well accepted principle in business and school administration that money spent in competent administration is real economy. Wise expenditure, efficient management, and a high quality of supervision throughout the system can be secured only in this way. Business, industry, and city schools generally have learned this lesson. Money spent in adding essential activities to the State department of education and in raising the efficiency of the staff will, it is believed, prove an excellent investment.

#### REORGANIZATION OF THE STATE DEPARTMENT OF EDUCATION

A reorganization of the State department of education should be effected as soon as possible. Some additions to the staff are desirable, as specialists in the new lines of work set up should be employed. However, reorganization can be effected without additional numbers and a balanced supervisory program put into operation. The complete plan suggested can be adopted gradually. Changes, when made, should be in line with the ultimate adoption of the plan proposed.

The immediate needs of the department in the opinion of the survey staff are: (1) Reorganization of supervision, with a director of supervision in charge. The type of supervision now followed should be replaced by State supervision of the kind herein suggested. The director should coordinate elementary and secondary, general and special supervision, eliminate overlapping and misunderstandings in the placement and distribution of responsibilities, and establish unified policies and procedures; (2) establishment of a teacher service charged with all responsibilities for certification of teachers; coordinating certificating and teacher-preparing functions and formulating State policies in this field; (3) establishment of a research and statistical service; and (4) establishment of a health education service.

*Proposed plan for reorganization.*—The chart presented in Figure 3 is a schematic representation of a proposed organization of the State department of education in Utah, established to develop and administer general State policies affecting education in the State. It aims to comply with the spirit of the State constitution—which considers the State board and the department of education as the directing head of the public-school system, including all schools from the kindergarten to the university—and with modern educational theory.



The proposed organization contemplates, on the part of the State department of education, direct supervising and inspectorial power over the lower schools. Indirectly, through cooperation with the authorities in higher education as outlined also in Chapter VII and through the State superintendent's membership on the board of management of the higher institutions, it provides a means for adjustment between the lower schools and school policies and the machinery and policies of higher education in the State. In the elementary and secondary schools the State department will carry on

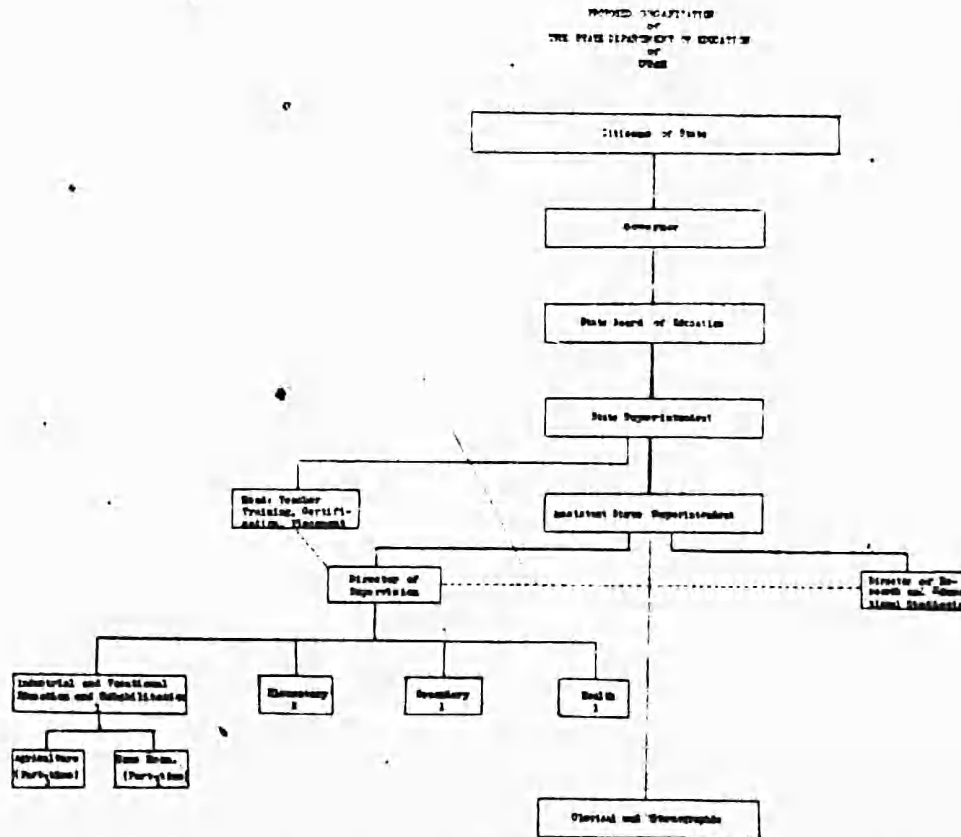


FIG. 3.—Proposed organization of the State Department of Education of Utah

its work under statutory provisions and through the State board of education regulations setting forth requirements regarding attendance at school, courses of study, graduation requirements, textbooks to be used, apportionment of State school moneys, administrative procedure in district organizations, certification of teachers, school buildings, financial and educational reports, and other things of this general character. In the field of higher education the department will participate, not through dictation of policies, but through leadership and coordination. Specifically it will influence the nature of the courses offered for teacher training through certification and through representation by the State superintendent on the board of manage-

ment of the higher institutions; through standardization of secondary schools it will influence the entrance requirements and courses in higher institutions; through the State superintendent's membership on the State board of higher education it will have a direct voice in legislative control of State higher institutions. In this and similar ways it may fulfill its responsibility for coordinating the higher and lower schools. Higher institutions must preserve an individuality of their own, but they have a responsibility with reference to the lower schools for the fulfillment of which cooperation with the State organization is essential in the building up of a unified State educational policy.

The plan of organization suggested contemplates a unified scheme with a single head and with responsibility clearly defined and definitely placed. The people elect a governor, the governor appoints the State board of education, the State board of education appoints the State superintendent of schools, who is the executive head of the board and the directing agency in the system. While the survey staff recommends appointment by the State board of education, the continuance of the popular election method need not necessarily prevent all the other benefits of the system of organization shown here.

Typical duties of the State superintendent in Utah should include: Those delegated to him as executive officer of the State board of education (provided suggestions given as to the composition of the State board are followed); direct charge of legal matters concerned with school administration; to advise in all legislative action affecting education; to interpret the educational aims, purposes, and policies of the State board of education for the State; to coordinate and direct activities of the State education staff; to be in charge of external relations of the board and of relations between the various units in the school system; to prepare the biennial report; to serve as a member of the State textbook commission appointed by the State board of education, and as a member of the State board of higher education. Other duties of the superintendent would be to attend all regular and special meetings of the board and to cooperate and advise with the board or any committee formed by it; to enforce provisions of the law and rules and regulations relating to the management of schools and other educational agencies under the direction of the board of education; to prepare courses of study authorized by the board; to select, with the approval of the board, employees of the board; to have charge of the interpretation of educational policies and formulation of necessary regulations or explanations concerning them; to recommend salaries of professional employees of the board.



Directly under the superintendent are placed the functions concerned with teacher training, certification, and placement. These are made the immediate concern of the superintendent because of his membership on the two boards responsible, namely, the State board of education for standards and regulations relating to certification and the State board of management of higher institutions for teacher-training courses. The policies of both boards are realized, through the functions indicated, in the State department of education. The State superintendent is responsible for coordinating, defining, and interpreting State policies concerned with teacher training and certification, and acts as the agent of the State board of education in making such regulations as are necessary to carry them out.

Two important functions of the State department directly under the superintendent's supervision and that of the assistant State superintendent, because of the necessity of cooperation, are those of (a) supervision and (b) research and educational statistics. These are represented in the diagram (p. 39) as sections or subdivisions, each with a director in charge. They are connected with a dotted line to show the intimate relation that must obtain in practice. Research and statistical studies will arise from the needs of the schools. With these the supervisors have the widest opportunity to be familiar. The statistician, who is a member of the research division, will compile routine statistics used by both directors, as well as have general charge of the collection of educational statistics.

The director of supervision, working under the superintendent, will be responsible for the supervisory force in the State department of education. He will coordinate and direct all supervisory activities; assume leadership in the formulation of supervisory policies and provide that they are put into practice; lead in the formulation of curricula and courses of study; direct in-service training for superintendents and supervisors; provide for conferences of these officials (bringing in specialists from within and from without the State) in which educational programs are outlined and methods of checking accomplishments adopted; act in an advisory capacity to the State superintendent on problems affecting the certification of teachers and on the relations of the schools with the extension service and the departments of teacher training in the higher institutions; and exercise general leadership and control, delegated by the State superintendent, over those matters primarily concerned with the improvement of instruction in the State school system. He will provide the State superintendent with intimate knowledge of the schools and their needs and assist in interpreting the implication of conditions as he observes them.



The supervisors, under the direction of the director of supervision, will come in intimate contact with superintendents of schools, and through them with principals and classroom teachers, thus having first-hand information concerning teaching problems. It will be a matter of correct ethics that State supervisors shall work through local superintendents and superintendents shall work through local supervisors or principals. The supervisors should emphasize the instructional rather than the inspectional aspects of school efficiency, although the latter must be kept in mind, especially as they relate to problems of certification, teacher training, and the like.

The machinery set up contemplates the coordination of all supervision by the director—special subject, elementary, and secondary; the further unification of vocational and industrial, agricultural and home-economics education with a supervisor in charge of industrial and vocational education and rehabilitation, a part-time supervisor of agriculture (as at present) and a part-time supervisor of home economics, the first named to be chairman of the group and responsible to the director of supervision for coordinating the vocational work supervised by the group. The director of school buildings may be assigned to the research service or he may be a member of the supervisory staff, if that arrangement is considered preferable. The former is contemplated here.

Two elementary supervisors are suggested. They should be trained primarily as general supervisors. In addition one should have specialized in lower-grade (kindergarten-primary) supervision, one in upper elementary grade supervision. Generally it will be unnecessary for both elementary supervisors to visit the same territory, school, or district at the same time. Details of supervision which are highly specialized will be left largely to local supervisors. From the State point of view duplication should be avoided. Superintendents or supervisors having specialized problems will, of course, call upon the supervisor who is a specialist in the particular field in which assistance is sought. Special needs will often be discovered by one or the other supervisor who will recommend a visit by his colleague who has specialized in that field. In the main, duplication will be avoided and economy promoted by a modified sectional or district plan of supervision from the State.

The director of research should have few executive and no inspectional responsibilities. He should be free to devote his whole time to studies and to editorial service. All publications of the department should be edited by him. This will give unity to the work of the department and will result in economy as well. In general, the researches to be made should be suggested by the needs of the schools. They will be discovered by members of the entire staff. Cooperation



of all subdivisions will be necessary in determining problems for study. Once a study has been determined upon the director of research should be free to carry out the work according to his own ideas.

Among the activities in which a research department, if established, should engage the following are suggested as of special importance in Utah and are typical problems for research by such a department.

(1) Is the half-day session warranted in the State of Utah? What are its merits and demerits?

(2) The development of a set of principles and techniques by means of which boundaries of districts or attendance districts and the placement of buildings may be determined.

(3) The development and organization of new materials for instruction.

(4) The development of a State testing program.

(5) Right methods of financing building programs.

(6) Cooperation with other agencies in research in higher education problems as these affect the lower schools; for instance, entrance requirements, courses in teacher training, and the like.

(7) Teacher supply and turnover in the State.

(8) Means for selecting candidates to receive teacher training.

(9) Cooperation with district superintendents on special projects, as the location of a new building, the type of building to construct, the reorganization of courses, the handling of reading-circle work, and similar matters through which the State supervisor would train the district superintendent.

(10) Standardization of school equipment.

(11) Overhead costs in education.

(12) Classification of the functions of superintendent, principal, janitor, and other officers.

(13) The educational value of kindergartens and current practice in systems in which kindergartens are established.

(14) Should children of kindergarten age be included in the school population and thereby partake in the distribution of State funds?

#### TEACHERS' SERVICE IN THE STATE DEPARTMENT

The survey staff recommends the establishment in the State department of education of a "Teachers' service" in which are centered the functions of certification and placement of teachers and of cooperation in the formulation of courses leading to certification with the higher institutions of learning engaged in training teachers. This service should interpret to school officers and to the general public, through established regulations and in other necessary ways, the vari-



ous policies of the State board of education in relation to teacher training, certification, and placement. It should be in direct charge of the State superintendent, but under the immediate direction of a subordinate official appointed by him. The latter should cooperate closely with the directors of supervision and of research and statistics to the end that the results of the efforts of these directors shall function in improving the teaching staff through certification and training.

*Certification.*—Utah is among the most progressive States in the matter of teacher certification in at least three ways: (1) Certificates are issued on the basis of credentials from approved institutions showing courses in and credits for academic and professional training rather than examination; (2) the minimum prerequisite for certification, namely, two years of education of higher grade, including education courses, is as high as in any other State; (3) the practice of differentiation among types of certificates corresponding to types of work, as junior high school, supervisory certificate, administrative certificate, etc., has been established.

Full centralization of certificating functions in the State department of education is, however, not fully realized. The university issues certificates on its own responsibility—authority which should be centered in the State department of education. The requirements for certificates so issued, and the corresponding facilities offered prospective teachers for sound professional training, are relatively inferior, as might be expected when an institution is sole arbiter of these standards. The State has no systematic teacher-training certification program carefully worked out and articulated in its several ramifications. The law requiring all teachers to hold certificates and the regulations setting up requirements are not rigidly enforced. Results of these weaknesses are apparent throughout the whole State school system.

The survey staff believes that the time has come when the efficiency of the Utah State school system waits on a superior teaching and supervising staff. The remedy lies in strengthening the teacher service in the State department; in more and better facilities for training teachers, supervisors, and superintendents offered in institutions; in the proper coordination of the efforts of these two services; and in the rigid enforcement of such regulations as shall eventually be determined. Elsewhere in this report are suggested certain procedures which make possible the type of correlation indicated and suggestions for courses in higher institutions leading to teaching certificates.

All certificating authority should be centered in the State board of education. There can be little question as to the desirability of such centralization. The State is interested equally that all children



of the State be taught by thoroughly competent teachers, and that the teacher's efforts be directed by able supervisors and superintendents. The State board of education, functioning through the State department, should govern the standards of teachers, supervisors, and superintendents, and have regulatory control of courses leading to the preparation and certification of teachers, supervisors, and superintendents for the schools of the State. The law requiring all teachers paid from public funds to hold legal certificates should be immediately and rigidly enforced, and that permitting the university to issue certificates should be repealed.

The certification regulations now established should be revised and strengthened. Requirements should be measured not only in terms of number of credits accepted but also in type and quality of courses required. Opportunity for renewals or exchanges for higher grade certificates on the basis of successful experience and professional growth should be definitely provided and criteria for this exchange established.

A beginning has been made in specialization of certificates according to the type of work. Specialization should be extended to include an increased number of different kinds of certificates corresponding to an increased number of specialized fields of work. Specialized qualifications and experience for certificates in each field, graduated according to grade and status of certificate offered, should be required.

In each field or class (as kindergarten-primary, junior high-school, etc.) there should be opportunity for applicants to receive certificates of the different grades established, including the highest grade. The highest certificate in each of the different fields should represent the same, or approximately the same, professional status as to amount of general and specific training, experience, and the like. The purpose is so to formulate regulations that a teacher who wishes to specialize in any one field of work, say upper elementary grades, for example, should be able to secure as high a grade of certificate in that field as can the teacher who specializes in junior high-school work or other fields of teaching. At present a primary teacher who wishes to hold an advanced grade of certificate (and receive the accompanying higher salary according to established rules in some districts) must work for a high-school certificate in order to do so. The principle here enunciated is that a skillful teacher should be able to aspire to the highest teaching certificate offered in the State and the best salary offered in the system through quality of service and amount of professional training rather than because of the particular field in which he specializes.

The regulations of the State board of education should set up several types or grades of certificates in each of the several different



fields or classes decided upon for specialization. These will include the following: In the elementary field, kindergarten-primary certificates and upper-elementary or intermediate-grade certificates; in the secondary field, junior high-school certificates and senior high-school certificates, the latter carrying some indication of the specialized subjects the candidate is prepared to teach; special certificates, as for agriculture, home economics, health, music, the arts, etc.; special certificates representing groups of subjects, or high-school certificates specifying groups of subjects, as English and history, may be included; supervision and administration. Two or more certificates in each of the different fields represented should be provided, provisional (or probationary) certificates and "permanent" certificates, the latter effective during continuous good service or under conditions set forth by State regulations. *No life* certificates should be issued. "Permanent" means effective during continuous good service and should require that the applicant present evidence satisfactory to the board that the type of service rendered is efficient and that professional growth<sup>\*</sup> in service is continuous. Probationary certificates may be issued in each of the different teaching fields on evidence of the required academic and professional training. Permanent certificates require in addition successful teaching experience. They may or may not require more academic or professional training. In the secondary field certificates should bear on their face evidence of the subject or subjects in the secondary field which the applicant is fitted to teach. Fitness should represent pursuance of educational courses and major courses in the special subject or subjects applicant is certificated to teach. Supervisory and administrative certificates should be issued only to those who have had successful teaching experience, as well as general and specific training in the field represented by the certificate. In these two fields provisional or probationary certificates represent at least teaching experience; permanent certificates represent successful supervisory or administrative experience, according to the respective certificate issued.

The principles set forth herein are illustrated in the following suggestive plan for certificates in one field or class:

Certificates of kindergarten-primary class:

*A. Provisional certificate, second grade.*—Requirement, completion of a two-year curriculum in an approved institution of higher grade, including professional courses prescribed by regulations of State board of education. Duration, two years; no experience is required. The certificate is not renewable, but may be converted into the next higher grade certificate in this class.

\* "Professional growth" as used in this section refers to attendance at higher institutions of learning; travel, research, and the like. It may include any type of definite contribution to educational work or to the profession.



*B. Provisional certificate, first grade.*—Requirement same as above and two years of successful teaching experience, including in addition at least six weeks of professional training; or completion of three years of approved courses of higher grade without experience. This certificate should be renewable on presentation of evidence of professional growth satisfactory to the State board of education.

*C. "Permanent" certificate.*—Valid for five years. Issued to holders of provisional certificates who have had successful experience and who show evidence of professional growth. Renewable on evidence of successful experience and continued professional growth, including pursuance of courses approved by the State board of education.

*D. Professional "permanent" certificate.*—Issued on completion of a four-year college course with special training for kindergarten-primary work and evidence of two years of successful experience. Valid for five years and renewable for five-year periods on evidence of continued professional growth and successful experience.

*E. Special professional certificate.*—Issued on completion of one year of graduate work, courses including special work in kindergarten-primary field and at least two years of successful experience. Valid for five years and renewable for five-year periods on evidence of successful experience and professional growth.

Administrative and supervisory certificates should be issued only on evidence of completion of a minimum of four years of college work, including special training in administration and supervision. Special-subject certificates should show academic and professional training equivalent to the minimum requirement for regular certificates, including special training for the subject for which issued. Special-subject certificates for secondary teaching positions should show evidence of four years of college work or the equivalent, including a prescribed minimum of training in the special subject for which the certificate is issued. The requirements given represent minimum qualifications for the respective certificates. Experience should be credited only when evidence of its success is given by the administrative or supervisory officer.

Requirements concerning courses in higher institutions, evidence of pursuance of which should be presented to the State board before certificates are issued, should be set up by the State board of education through its certification service. Suggestions for type courses are given below:

First year, required courses common to applicants for all elementary certificates: Educational psychology, introduction of teaching, personal hygiene, school and community hygiene, oral and written English, biology and nature study, observation and par-



ticipation, library methods. The amount of training in each of the above should be prescribed by the State board of education.

Second year, specialized courses for those preparing to teach in the intermediate grades: Principles and technique of teaching; child study; professionalized subject-matter courses in each, arithmetic, the social sciences, juvenile literature, including the teaching of reading; the scientific movement in education, with emphasis on tests and measurements; and practice teaching.

In addition to the above, courses in music, the practical arts (including handwork), and physical education and games should be required during each session of the two years under normal conditions.

*Teacher-placing service.*—All information necessary for the intelligent placing of teachers will be on file in the State department, if the suggested plans are carried out in connection with the issuing of certificates. There is a tendency toward the establishment in State departments of education of teacher-placing services in which disinterested advice can be given to school officials seeking teachers, and impartial service can be rendered to teachers seeking positions. It is believed that a service of this type can be established in Utah, without involving any great expense in its successful operation and with great benefit to schools, teachers, and employing officials. If a small charge is necessary, it should not be larger than efficient service demands. To see that well trained teachers are available and that they are intelligently placed is a State responsibility. Among the States which have established placing agencies successfully are Minnesota, Massachusetts, and New York. Should Utah consider favorably the establishment of such a service, it is suggested that the State board of education study the experience in these States.

#### HEALTH SERVICE IN THE STATE DEPARTMENT

The survey staff recommends:

(1) That a general supervisor of health and physical education be appointed by the State superintendent whose function shall be to—

(a) Stimulate and advise in the work of the health examinations and health teaching in the elementary and high schools.

(b) Explain to parents (through parent-teacher associations) the object of this work and the need of their assistance.

(c) Cooperate with county dental and medical associations in effecting ways and means for securing annual medical examinations and semiannual dental examinations and treatment along lines previously mentioned at a reasonable charge, and free to those who can not afford to pay.

(d) Have general supervision of the physical education activities, properly develop these activities for all pupils and coordinate them with the other features of physical welfare work.



(c) Have supervision of the sanitary arrangements and condition of schools and of school grounds.

The incumbent of such an office should, of course, have a thorough training and experience in these various branches of school health work and receive a salary commensurate with the importance of the position.

(2) That the State department have prepared a comprehensive physical examination blank to be used in the preschool and annual school examinations and to accompany the child throughout his elementary and high school course. This blank should contain a record of the findings of the teacher or nurse as well as those of the physician, with an accurate account of what is done for the improvement of the defective child.

(3) That the State department of education should, through co-operation of the State and county dental and medical societies, and the department of child welfare of the State department of health, and the parent-teacher associations, make it possible for every child to have a complete physical examination and preparation shortly before entrance to school and annually thereafter throughout his whole school life, supplementing the examinations conducted by teacher or nurse. The emphasis is to be placed on correction of habits and defects and not on the mere examination of the child.

(4) That a minimum requirement for instruction in health be made of 10 minutes a day for the lower four grades, 15 minutes in the other elementary classes, and two periods a week for each of the junior and senior high-school years. This time is not to be taken from that already allotted to physical education activities.

(5) That since the State department rules (1926) that no person shall be employed by any board of education as teacher in any school district "who is physically disqualified by reason of tuberculosis, or any other chronic or acute defect, from successful performance of the duties of teacher," the State should make it obligatory on every applicant for entrance to a teacher-training course in a State training school that he be examined by a physician appointed by the State and at State expense and that where it is evident that he is physically or mentally unfitted for the business of teaching, he should be rejected; while, if found to have minor correctible defects or diseases, he should be placed on probation for the period of one quarter, and if these have not been removed or cured by that time he should be dropped from the school.

(6) That the State department require of all teachers in its training schools three hours of physical education and two of health examination and health education, including methods and practice for each of the two years of special training.

(7) That the educational requirements recently set down should be raised as the supply of teachers of physical education permits, to



three years of special training or to a major course such as is given at the State university and college.

(8) That provision be made for the liberal pensioning of teachers, with retirement at an appropriate age or after a suitable period of service.

*Special schools and classes for physically defective children.*—

Aside from the large proportion of children handicapped by defective mental machinery who need special educational measures, there is a small army of those who are badly crippled in limb or in sense organ who, in the State's interest, economic as well as humanitarian, should be made as happy and as self-reliant as possible.

*Cripples.*—In 1924 10 States either maintained State schools or district schools for such crippled children of school age as could not attend the ordinary school, or who needed special training, and many large cities of these States had established special schools. Utah is not in this list, nor is it one of the 14 States which make other provision for the help of these unfortunates.

It would be impossible to say how many children of school age in Utah need special provision for reconstruction and rehabilitation following their war with disease, but in surveys made elsewhere there are found to be about 2.5 juvenile cripples per 1,000 of the general population. If this figure applies to Utah, there are not less than 1,250 cripples of school age in the State, with one-fourth of this number in Salt Lake City. Many of these can attend the ordinary schools, but there is undoubtedly a sufficient number of the more helpless in Salt Lake City for maintaining special classes and, with the centralization of schools in Utah, such classes could be established throughout the State at the most convenient point for transportation.

A state commission should be appointed to study this subject.

*Children with serious defects of hearing, vision, or speech.*—

Many children (probably at least 1 per cent) are unable to profit by ordinary school methods on account of dullness of hearing, though they are not deaf. Such children can be successfully handled by special teachers and special methods, accompanied in many cases by treatment of the damaged ears. A considerable percentage of these children are able to return later to the regular classes. Children with very defective vision, from myopia, cataract, or other cause, and those with speech defects also need special training. A study should be conducted to learn the number of these children and how best to meet their needs throughout the State.

#### COUNTY SCHOOL DISTRICTS OF THE FIRST CLASS

The unit of organization for the administration of rural and other schools, outside of cities of the first and second class, in Utah is not exactly like that in any other State. It resembles more nearly the



county unit organization than any other. It is a county-wide unit in 22 of the 29 counties. Thirty-five administrative units include within them all schools outside of independent cities. They are called county districts of the first class.

The law providing for this type of administrative unit and the organization itself are commonly spoken of in Utah as "consolidation." The history<sup>o</sup> of the realization of consolidation is an interesting one, covering a long and determined struggle for an effective administrative unit. Consolidation in Utah is in part an outgrowth of the community life common in the State, where farmers, unlike those of other States, have from the beginning of its settlement lived in compact communities, owing both to religious homogeneity and the necessity of protection under early pioneer conditions against the Indians. Its final achievement marked the culmination of efforts which had their beginning in 1888, when a bill was introduced in the Territorial legislature embodying many of the ideas looking toward centralization which were later enacted into the laws of 1905 and 1915, respectively. By the terms of the consolidation law of 1905, boards of county commissioners were given the right to consolidate the schools in their counties. Six years later the exercise of this right was made dependent upon petition of a majority of the voters of a county, embodying into law a custom which had actually prevailed in practice during the six years. In 1915 the legislature made mandatory the terms of the optional law, thereby making the hitherto local option plan mandatory throughout the State. During the years intervening between 1905 and 1915 eight of the 28 counties consolidated voluntarily. Leaders among educators and laymen in these counties made a courageous struggle to secure the improved conditions which the reorganized unit made possible. Opposition developed and then died down both in the State as a whole and in the individual counties in which the new plan was adopted.

The first county to adopt the centralized unit was Salt Lake. Here 36 districts were consolidated into two—Granite and Jordan—the law becoming operative July 1, 1905. In spite of early opposition, both developed a degree of efficiency which attracted attention throughout the State and the Nation. Other counties which followed the example of Salt Lake County during the interim between 1905 and 1915 while the law was permissive were Weber, Box Elder, Cache, Sevier, Morgan, Davis, and Uintah. Among these are several counties with scattered population and low tax valuation. Advocates of the new system believed that its success in these counties would insure it against successful criticism. While this expectation was not fully realized, it seems probable that the effective work in these counties had an important influence on the final adoption of the state-wide

<sup>o</sup> From an unpublished report by A. C. Matheson.



law. There was the added weight of an awakened interest in consolidating schools in other parts of the country. A large number of States were by 1915 promoting consolidation through voluntary union of small districts as well as through the adoption of larger units of organization. Apparently in Utah the State Teachers' Association, State superintendents of public instruction, governors, and other prominent State officials were unanimously in favor of the plan throughout the long struggle for its accomplishment.

The law of 1915 has undergone some changes since its passage. A recent provision makes it possible to unite districts within a county in those counties in which more than one district has been established. Thus the tendency appears to be toward more centralization. Some errors in the application of the principle of centralization have occurred in carrying out the plan in some sections of the State, resulting in wealthy sections being concentrated into one or two strong districts, leaving larger but less valuable sections with inadequate funds for proper school support. The last amendment to the law to which reference is made above will tend to obviate repetition of such errors, and opens up a way to remedy those that have been made.

It is believed by the survey staff that the organization is on the whole suited to conditions in the State, that it offers the opportunity to progressive districts and boards of education to build up an efficient school system under professional management, that it equalizes educational opportunity to a considerable degree, makes possible the provision of both elementary and secondary school facilities in isolated communities, and provides the administrative machinery for setting up both business and educational management of a higher quality than is found in States organized on the district system plan. Much of the progress toward establishing efficient school systems outside of cities which has been made in Utah, referred to from time to time in this report, is due to the county district type of organization for the administration of schools.

#### COUNTY DISTRICT BOARDS OF EDUCATION

The county district boards of education (i. e., those outside of independent cities) are made up of five members each, one of whom is elected from and by each of the five school representative precincts into which each county school district of the first class is divided. Elections are held the first Wednesday in December every two years. Beginning in 1910 and every four years thereafter, three members, one for each odd-numbered precinct, are elected. Beginning in 1912 and every four years thereafter, two members, one for each even-numbered precinct, are elected. The boards elect from their own membership a president and vice president and select a clerk and treasurer who shall be registered voters of the school districts and



whose respective terms are two years. They may select such other officers as in their judgment are necessary.

The law specifies that the board shall have general administrative control over the schools in the district, select a superintendent of schools for a term of two years, and perform other duties, among which are the following: To establish and maintain schools; purchase, exchange and repair school apparatus, books, furniture, fixtures, and other supplies; to supply free textbooks except in high schools; and do all things "needful for the maintenance, prosperity, and success of the schools and the promotion of education." The board must also estimate the amount necessary for the support and maintenance of schools for each school year, purchase school sites, erect school buildings, and levy a tax not in excess of certain maximum rates set up in the law varying with the valuation of taxable property per child of school age. The board may submit to the voters the question of levying a special tax to buy sites, build and furnish schools, and improve school property.

*Board membership, duties and representation.*—So far as the duties enumerated in the law are concerned and performed in general practice as observed, there is, in general, conformity with good administrative theory and practice. In number of members, i. e., five, the board conforms to good administrative theory and successful practice. The plan of separating the election of school officers from the regular general election, thus isolating it from political considerations, is an excellent one. The plan of school precinct representation in selecting members, of tenure and retirement of board membership, and the practice of compensating board members to the extent of \$300 per year are not in conformity with approved practice.

Ward representation or other type of sectional representation on boards of education, formerly common in cities, is now practically discontinued in favor of city-wide representation not alone for schools, but also in the management of municipal affairs. The purpose of district-wide representation is to insure more nearly that board members have district-wide rather than local interests; to avoid undesirable rivalry among sections or precincts for new buildings, equipment, general school expenditures, etc.; to avoid the possibility of members assuming duties for their sections or precincts which belong to the superintendent, such as dictating selection of teachers on a neighborhood basis, designation of contracts to local people, and the like; and to insure that all educational considerations motivating actions of the board are district-wide rather than precinct-wide in extent. The survey staff believes that members of the county district boards in Utah should be elected from the districts at large. It is, of course, desirable that some precautions



be taken in order to insure that all sections of the district are represented on the board. This may be done by *nominating* persons from the designated school representative precincts, by providing that not more than one member may be selected from any one town or precinct, or in some other effective manner. For their *election*, members should be dependent on voters of the county at large.

#### COMPENSATION OF COUNTY BOARDS OF EDUCATION

*States in which county board members receive expenses only:* Arkansas, Iowa (limited to \$40 per year), Wisconsin—3 States.

*States in which county board members receive a per diem:* Georgia, Mississippi (not over 5 days a year), Tennessee (not over 30 days per year), Texas (not over \$36 a year), Virginia (not over 20 days a year)—5 States.

*States in which county board members receive both a per diem and expenses:* Alabama (limited to 12 days a year), California (per diem and mileage), Florida (per diem and mileage), Kentucky, Louisiana (per diem and mileage), New Mexico, North Carolina (per diem and mileage), Ohio (per diem and mileage), Washington—9 States.

*States in which county board members receive a salary:* Florida (in larger counties), Maryland (\$100 per year), Utah (not over \$300 a year and traveling expenses not over \$100)—3 States.

TABLE 9.—*Expenses of offices of school boards and superintendents of Alabama, Louisiana, and Utah*

	Total	Average
LOUISIANA <sup>1</sup>		
Expenses for the State, as a whole, excluding the cities of Lake Charles and Monroe, of superintendents' offices, including salaries of superintendents, salaries of stenographers, bookkeepers, etc., traveling expenses, and office expenses.....	\$367,532.62	\$5,742.69
Expenses for the State, as a whole, excluding the cities of Lake Charles and Monroe, of mileage and per diem of members of school boards.....	\$31,661.96	485.34
Total expenses for both offices.....	\$399,194.58	
Per cent of total:		
Superintendents.....	92	
Boards of education.....	8	
ALABAMA <sup>1</sup>		
Expenses for the State, as a whole, of county superintendents' offices, including salaries and expenses of superintendents and salaries and expenses of office force.....	\$289,855.00	3,244.29
Expenses, for State, as a whole, of school boards, including per diem, office, and traveling expenses, etc.....	\$35,540.00	455.64
Total expense for both offices.....	\$325,395.00	
Per cent of total:		
Superintendents.....	88	
Boards of education.....	12	
UTAH <sup>1</sup>		
Expenses for the State, as a whole, of county superintendents' offices, including salaries of superintendents, traveling, and other expenses.....	\$107,348.77	3,067.16
Expenses for the State, as a whole, of school boards, including salaries of board members and clerks, traveling, and other expenses.....	\$115,733.81	3,306.66
Total expense for both offices.....	\$223,082.58	
Per cent of total:		
Superintendents.....	48	
Boards of education.....	52	

<sup>1</sup> Data for Louisiana, taken from the annual report of the State Department of Education of Louisiana for the session 1923-24; for Alabama, from the annual report of the Department of Education of the State of Alabama for 1923; for Utah, furnished by the State department of education.



TABLE 10.—*Expenses of board of education offices and superintendents' offices in small cities or districts in each of five States*

State	Expenses of board			Expenses of superintendent		
	For each city or district	Total	Average	For each city or district	Total	Average
Colorado (6 cities).....	\$300 994 860 761 850 805	\$4,510	\$751	\$3,000 5,430 3,000 4,811 6,483 5,916	\$28,640	\$4,771
Idaho (6 cities).....	519 600 227 519 300 316	2,481	413	5,590 2,412 2,305 3,450 3,600 3,144	20,501	3,416
Montana (3 cities).....	315 600 1,340	2,255	751	2,520 3,600 3,500	9,620	3,206
Oklahoma (6 cities).....	240 250 300 200 150 360	1,500	250	3,000 5,075 2,600 3,600 2,680 3,000	19,955	3,325
Utah (6 districts).....	1,735 2,053 1,980 1,561 1,860 1,987	11,176	1,862	4,350 4,030 3,745 4,499 4,697 3,837	25,158	4,193
Whole State of Utah.....		157,572	3,939		132,112	2,302

*Retirement periods.*—The bad effects of the too short terms of county board members (four years) is intensified by the fact that they retire in groups of three or of two members each alternate biennium. Three members—a majority—retire every four years provided all three fill out the full term for which elected. Seldom are all reelected. Many registrations or vacancies occur.

A study of the terms served by 172 county board members who had served since 1916 in the "sampled" districts shows that the median term of service in these districts during that period was two years; 18 members served less than one year, 47 served one year, 41 two years. Sixty per cent of the 172 members served two years or less.

Long terms and continuity of service for a majority of the board are desirable for county-district board members for the reasons set forth elsewhere for members of the State board of education. They are mainly to give members time to familiarize themselves with their duties in the management of the school system and to insure uninterrupted duration of educational policies.

*Overhead expenses.*—The survey staff is of the opinion that in general the overhead expense connected with county-district board



offices is too high, that considerable saving can be effected, and efficiency promoted. A salary is now paid county-district treasurers. In most instances the duties of the treasurer are nominal and could be performed by a secretary to the superintendent. If this position were abolished, four or five thousand dollars would be saved annually to the State, a relatively small sum but one which could, in the opinion of the staff, be spent to better advantage for strictly educational purposes, e. g., supervision or increased salaries where particularly needed.

Board members:	1915-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

FIG. 4.—Service of members of board of education in one county district, 1915–1926

TABLE 11.—Salaries of clerks to district boards of education, Utah

Number of districts	Annual salary
2	\$75 to \$80
11	200 to 620
12	1,080 to 1,500
9	1,800 to 2,100
1	2,280
2	2,400
1	4,300
Total paid in salaries, 38 districts	48,722
Expenses of clerks, 37 districts	11,780
Salaries of treasurers (25 districts reporting)	3,742
Office help and sundry (clerks and treasurers)	35,742

Some change is desirable in the general practice concerning duties and salaries of the clerks to the boards of education. Many of them



receive salaries higher than those paid to supervisors and other professional officers. The duties of the clerk to the board are not, or should not be, of a technical nature. Occasionally it was found that the clerk to the board supersedes the superintendent as adviser to the

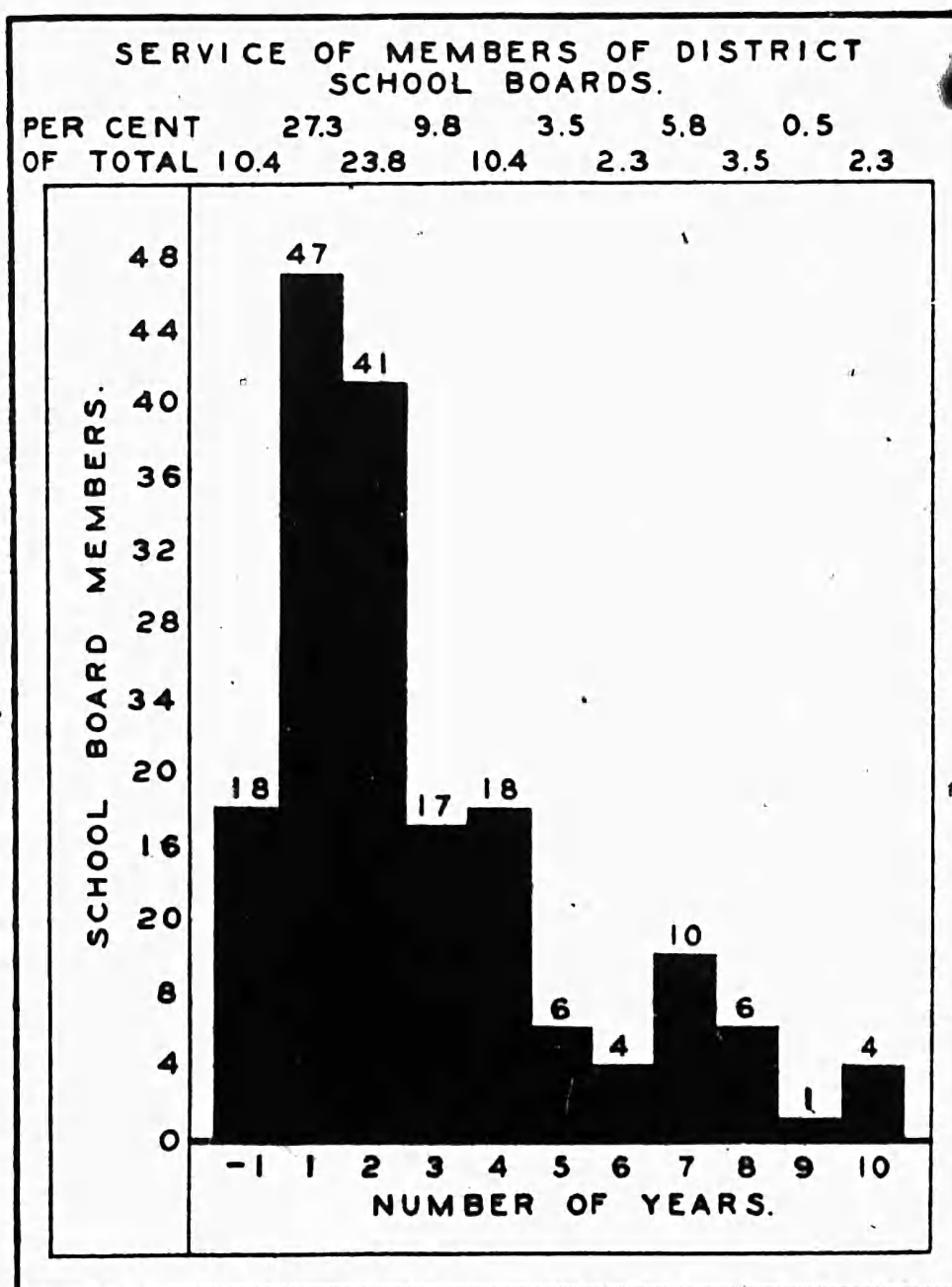


FIG. 5.—Total number of school board members, 172. Terms range from 18 with less than 1 year of service to 4 with 10 years of service. Median terms of service, 2 years

board in educational matters, such as building arrangement, salary scales, and the like. It is at least possible that the loss of professional control of professional matters and undesirable division of responsibility may result. In a number of districts the offices of secretary



to the superintendent and clerk to the board are combined. This practice, it is believed, should be extended to all districts. The person employed should be first secretary to the superintendent and should work under his direction. He should then be assigned to act as clerk to the board.

The practice of paying stipulated salaries to board members is unnecessary and undesirable. Board membership should be an honor coveted by eminent citizens. Expenses and possibly a per diem should be provided. Few States having systems similar to the Utah system compensate county board members. Certain facts concerned with compensation of county boards of education in several States are shown on page 54. Florida and Maryland are the only States besides Utah in which board members receive salaries. In Florida the practice persists in large counties only. In Maryland the amount is nominal and resembles a per diem and expense rather than a salary allowance. Utah is apparently the only State, so far as information is available, in which members of county boards of education receive a salary amounting to any considerable sum. The practice has been abandoned in most cities also. Even per diem allowances, when provided, are small. In many cases they are dispensed with entirely.

While the chief argument against salaried boards of education is not an economic one, there would be considerable saving in actual expenditure if the practice were abandoned in Utah. The cost of boards of education (including treasurers and clerks to the boards) as compared with the cost of upkeep of the superintendents' offices (salaries and expenses of superintendents and clerks) is disproportionately large for the State as a whole. If we compare the costs of upkeep of district superintendents' offices and school boards' offices in Utah with similar expenses in Louisiana and Alabama as shown on page 54, it appears that Utah is spending far more in proportion on that part of the overhead concerned with the upkeep of school boards and their offices than on that part of the overhead concerned with the upkeep of the superintendents' offices, reversing the situation in the two other States cited. Table 9 shows the expenses of the boards of education offices compared with those of superintendents' offices in small cities in four States near Utah. The result shows the same disproportionate expenditure on school boards as is shown on page 54 for the States of Louisiana, Alabama, and Utah. The cities were selected because the salaries paid superintendents were similar to those paid district superintendents in Utah; the States because of similar type of administrative unit.

Total overhead expenses of boards of education in county districts, including salaries, travel, and other expenses of board members and



clerks, are \$157,572. Much of this should be saved for other purposes. Compared with counties in other States with administrative organization similar to that in Utah and with small cities, the amount spent on boards of education in Utah is large. In many cases the salaries paid to the five members of the board and to the treasurer would be sufficient to employ a supervisor. In districts in which the superintendents are underpaid the money might well be used to get better qualified superintendents and correspondingly better educational facilities for the children.

*Personnel.*—An effort was made to collect a few pertinent facts concerning the personnel of boards of education in county districts throughout the State. An inquiry was sent to each superintendent requesting information concerning the occupation, tenure, and any special qualifications or evidences of public service of school board members which might have been considered as of weight in their selection. Replies were received from 34 county districts concerning 170 board members. So far as can be judged by these replies, board members are representative citizens interested in public affairs and of high standing in their communities in nearly all districts.

Reports were received on occupations of 157 board members; 40 are merchants or bankers or business men, 67 farmers, 15 engaged in professional occupations, 10 public or church officials, 10 teachers, 7 engaged in clerical work, 8 in mines and trades. Only one is reported as a housewife. In the whole group of 170, there are but three women so far as can be judged from the names and occupations reported. According to the questionnaire replies, 55 were elected, in part at least, because of their active participation in general civic and community activities. The superintendents made no comments whatever as to business efficiency or civic interest of 64 members (practically half of those on whom reports were received). Fourteen were reported as good supporters of schools, 9 as having a high degree of business efficiency, 5 as being either "judicial" or "conservative," 6 as being active church workers, and 16 as having no special qualifications for board membership.

The information given is not enough to form a basis for definite conclusions concerning the quality of the members of county-district boards of education. It may be considered as on the whole setting forth the favorable side of the case, since the superintendents giving the information are employed by the boards and may be expected in the long run to be in general agreement with their ideals and policies. There is, however, nothing indicated in the study of the personnel to lead one to believe that the quality of the board membership would be lowered if the salary now paid were dispensed with and the boards



served without salary. On the whole it is believed some improvement might result from the change.

*Recommendation.*—The staff recommends legislation providing that county-district board members be elected from the district at large annually for five-year periods, one retiring each year; that service be without compensation with allowance for expenses only; that secretaries to superintendents act also as clerks to the boards of education, and that the position and salary of the treasurer to the board be abolished and his duties be performed by the county superintendent or his secretary.

#### THE COUNTY-DISTRICT SUPERINTENDENT

The schools of each county district outside of independent cities are administered and supervised by a county-district superintendent who is selected by the county-district board of education. This is the manner of selection approved by authorities in school administration and most successful in practice. Under the control of an intelligent board of education it insures and retains during reasonable tenure professionally trained officers as superintendents and promotes and protects efficient school administration. The people of Utah deserve special commendation for adopting it. While results which should be reasonably expected from the superior administrative system have not always been attained, in the opinion of the survey staff the situation is remediable, without undue hardship or drastic changes in organization.

The survey of the superintendent and his work, which is the substance of this section, is the result of careful observation by members of the staff in all of the districts selected for sampling and a few other districts, and of a study of replies made by superintendents to two comprehensive questionnaires, one sent out by the Utah State Department of Education and one sent directly from the Bureau of Education. On the whole, the staff members were impressed with the attitude, sincerity of purpose, spirit of progress, and desire for constructive criticism which animated the majority of superintendents visited or interviewed. Among them are many who have acquired a degree of efficiency, in the establishment of progressive school systems, which has won the notice of school officials outside of as well as within the State.



TABLE 12.—Experience, time distribution, and hours of clerical assistance provided for each of 34 county district superintendents in Utah

Superintendents	Experience				Distribution of superintendents' time (in per cents)							Hours of clerical help per day
	As superintendent	As principal	As teacher	Total	Instruction	Administration	Supervision	Clerical duties	Professional load	Additional income activities	Community activities	
1	2	3	4	5	6	7	8	9	10	11	12	13
No. 1	17	8	2	27		23.0	25.2	15.7	17.9		20.6	8
No. 2	14	5	5	24		10.2	40.1	7.1	24.4		17.9	8
No. 3	14	4	10	28				27.0			45.9	
No. 4	13	4	6	23		19.4	13.5	8.4	31.6		27.0	6
No. 5	12	10	8	30		11.2	30.3	19.3	26.3		4.3	7
No. 6	11		16	27	6.2	13.0	19.4	10.8	32.8	1.2	14.6	1
No. 7	10	10	10	30	39.3	11.4	4.7	10.7	29.3		4.1	
No. 8	10	8	14	32		21.8	48.6	5.8	10.7		13.4	
No. 9	9	4	5	18		34.3	39.5	10.0	7.7		8.3	8
No. 10	7	4	4	15	22.5	16.1	17.9	14.7	11.3		16.8	3
No. 11	6	5	3	14		6.1	18.5	13.5	18.5	22.1	20.9	6
No. 12	4	10	3	17		31.7	46.8	6.6	2.1		12.5	8
No. 13	4	6	6	16	50.7	5.3	1.5	9.2	13.0	9.2	10.7	
No. 14	4	4	8	16	4.3	52.5	17.5	7.5	9.3		8.7	5
No. 15	3	19	2	24		10.4	24.2	26.7	34.1		6.9	7
No. 16	3	11	13	27		33.5	38.5		14.3		13.4	7
No. 17	3	8	13	24		12.5	19.6	37.0	14.6		16.0	8
No. 18	3	7	4	14	57.0	6.2	5.8	12.5	9.7		8.5	
No. 19	3	5	6	14		28.6	23.2	16.5	18.7		12.5	8
No. 20	2	11		13		2.4	48.3	9.6	33.8		5.6	8
No. 21	2	9	3	14		24.5	21.3	16.9	18.5	3.3	15.2	2
No. 22	2	7	2	11	4.2	42.5	9.8				4.9	
No. 23	2	4	8	14		21.0	10.0	11.4	28.2	5.4	24.0	8
No. 24	2	3	2	7		9.8	35.7	11.2	38.8		8.0	
No. 25	2		7	9		22.2	19.3	34.2	25.8		11.4	7½
No. 26	1	16	18	35	25.6	37.6	17.1	8.1			6.8	1½
No. 27	1	14	7	22		21.4	17.4	7.7	37.1	3.7	13.2	7
No. 28	1	9	4	14		19.9	11.4	21.7	27.0	3.2	13.8	4
No. 29	1	6	3	10		19.2	25.2	16.1	13.1	14.1	11.8	1
No. 30	1	4	8	13		18.4	21.4	15.8	26.1		18.4	9
No. 31	1	2	6	9		21.3	29.6	3.7	45.2			
No. 32		10		10		25.1	3.3	23.1	35.7	3.3	17.3	
No. 33		4	10	14		19.1	37.3	10.5	18.3	4.9	9.2	3
No. 34		1	4	5								

The headings correspond to terms used in questionnaire form. Instruction refers to duties connected with teaching. Administration refers to management of school system, administering school policies, attending board meetings and inspectional work. Supervision refers to visiting classes, holding conferences with teachers or pupils and supervision of instruction. Professional load refers to conducting professional meetings, attending university or extension classes, professional reading, travel connected with school work. Community activities refers to church work, community social activities, civic activities.



TABLE 13.—*Teachers, school buildings, distances to school, and area per district in Utah.*

Total number teachers per district	Total number school buildings per district	Greatest distance in miles from super- intendent's office to most distant school	Approx- imate area in square miles of district
A	B	C	D
180	43	200	8,000
161	31	189	7,500
151	31	171	6,600
150	31	141	6,500
137	27	130	5,184
134	26	125	4,500
122	24	120	4,500
111	21	91	4,400
107	21	75	3,132
102	21	75	2,500
87	21	72	2,400
86	21	70	2,400
82	19	60	2,000
82	18	54	2,000
82	17	52	1,800
81	16	50	1,167
71	15	50	1,031
70	15	50	830
63	15	35	650
55	14	31	530
54	13	30	400
54	12	25	400
45	12	23	225
44	11	22	150
33	10	22	100
30	10	20	
28	10	20	
27	8	20	
27	7	20	
25	6	20	
25	5	18	
24	4	10	
4	3	5	
Total number teachers 2,534	558	2,006	68,899
Mean 76.8	16.9	63.5	2,755.9
Median 71	16	50	2,000
First quartile 31.5	10	21	500
Third quartile 100.0	21	78	4,500

*Explanation of district superintendents tables.*—Table 12 gives the experience of the district superintendents and the distribution of their time. The first column gives the superintendents (by number) arranged according to the number of years of experience as superintendent, the one with the greatest number of years' experience as superintendent coming first. Reading horizontally across the page, each superintendent's experience as principal, as teacher, and his total years of experience are given; the per cent of his time spent instructing, if any; the per cent spent with administrative duties, with supervision, with clerical duties, with professional work, with



additional income activities, and with community duties; and the hours of clerical help per day provided for each superintendent.

Their experience as superintendent ranges from 1 to 17 years for 31 superintendents, with a median of 3 years for the group and the middle 50 per cent ranging from 2 to 10 years. Their experience as principal is arranged in a graduated scale. This ranges from 1 to 19 years for 32 reporting, with a median of 7 years. Their experience as teacher ranges from 2 to 18 years for 31 reporting, with a median of 6 years' teaching experience. The total experience for the 34 superintendents reporting ranges from 5 to 35 years, with a middle 50 per cent ranging from 11.5 to 24.5 years and with a median of 15 years' total experience.

The per cent of time devoted to instruction by 8 of the 35 district superintendents (excluding city school districts) who teach part time varies from 4.2 to 57. The median superintendent spent 24 per cent of his time at such work.

Thirty-two superintendents report time spent in administrative duties, varying from 2.4 to 52.5 per cent of their total time. The median in this group spends 19.6 per cent of his time in administrative duties, and the middle 50 per cent spend from 11.3 to 24.8 per cent of their time in this manner.

The same group spends from 1.5 to 48.6 per cent of its time in supervision, with the median devoting 20.5 per cent of his time at supervisory work, and the middle 50 per cent giving to this phase of their work from 13.5 to 35.7 per cent of their time. Column 9 shows that 31 superintendents spend from 3.7 to 37 per cent of their time in clerical duties, with the median giving to this work 11.4 per cent of his time, and the central 50 per cent devoting from 8.3 to 17.5 per cent of their time to clerical work. Column 10 shows that 30 superintendents spend from 2.1 to 45.2 per cent of their time at professional meetings, in school committee work, attending university or extension classes, etc. The median of this group spends 21.5 per cent, and the middle 50 per cent spend from 13 to 32 per cent of their time at such work. Column 11 indicates that 10 of the 35 superintendents devote a part of their time to some outside gainful work, the per cent varying from 1.2 to 22.1 for the 10 superintendents. Column 12 shows that 32 district superintendents spend from 4.1 to 45.9 per cent of their time at community activities, the median amount being 12.8 per cent and the central 50 per cent, varying from 8.3 to 17.3 per cent. In column 13 it is shown that 9 of the 24 superintendents reporting clerical assistance have one full-time assistant each. The remaining 15 have such help varying in amount from 1 to 7½ hours daily. The median for the group has 7½ hours' clerical assistance daily.



The columns of numbers in Table 13 are arranged independently of each other; the numbers in each column are arranged in graduated form, with the largest number for each group at the top of its respective column. Column A gives the number of teachers per district for 33 districts. The total number of teachers in these 33 districts is 2,534, varying from 4 to 180 teachers per district. The average number per district is 76.8 and the median district has 71 teachers. The central 50 per cent of districts have from 33 to 107 teachers each. The lower 25 per cent have from 4 to 30 each and the upper quartile have from 111 to 180 teachers each.

Column B gives the number of school buildings per district in 33 districts of Utah. The total number of buildings in the 33 districts reporting is 558. The number varies from 3 to 43 per district. The average number of buildings per district is 16.9, and the median district has 15 buildings. The central 50 per cent of the districts have from 10 to 21 buildings each; the lower 25 per cent have from 3 to 10 each; and the upper 25 per cent have from 21 to 43 buildings each.

Column C gives the distance in miles from the superintendent's office to the most distant school in the 33 counties reporting. The distance varies from 5 miles to 200 miles. The average distance is 63.5, and the median is 50 miles. This distance varies in the central 50 per cent of the districts from 22 to 75 miles.

Column D gives the approximate area in square miles of 25 districts reporting. The area varies from 100 to 8,000 square miles. The average area is 2,755.9 square miles, and the median district contains 2,000 square miles. The area varies in the central 50 per cent of districts from 650 to 4,500 square miles.

*Educational qualifications of the county district superintendent.*  
From the study of education and training of superintendents made by the survey staff from questionnaire forms sent out by the State department of education, it appears that of 38 superintendents reporting, 25 have graduated from colleges with bachelors' degrees; 4 have masters' degrees; 9 have done no or only partial college work. Three things are noticeable concerning educational qualifications: First, practically all those who have college training, especially undergraduate training, have procured it in Utah institutions. Of 37 reporting some college work, 34 have pursued that work in Utah institutions. Three reported graduate courses in out-of-State institutions. Second, relatively few superintendents have pursued graduate courses of any considerable amount or significance. Only a few of these are courses in administration or supervision. Third, of those reporting college graduation more than half graduated before 1900, eight since 1920. Training, modern in nature, is not as common as is desirable. Twenty-four have taken some kind of ex-



tension or other courses within five years preceding the report. A number of the superintendents have received most of their college training during service. The educational qualifications of the group are shown in the accompanying graph, but are not shown in detail by persons or districts.

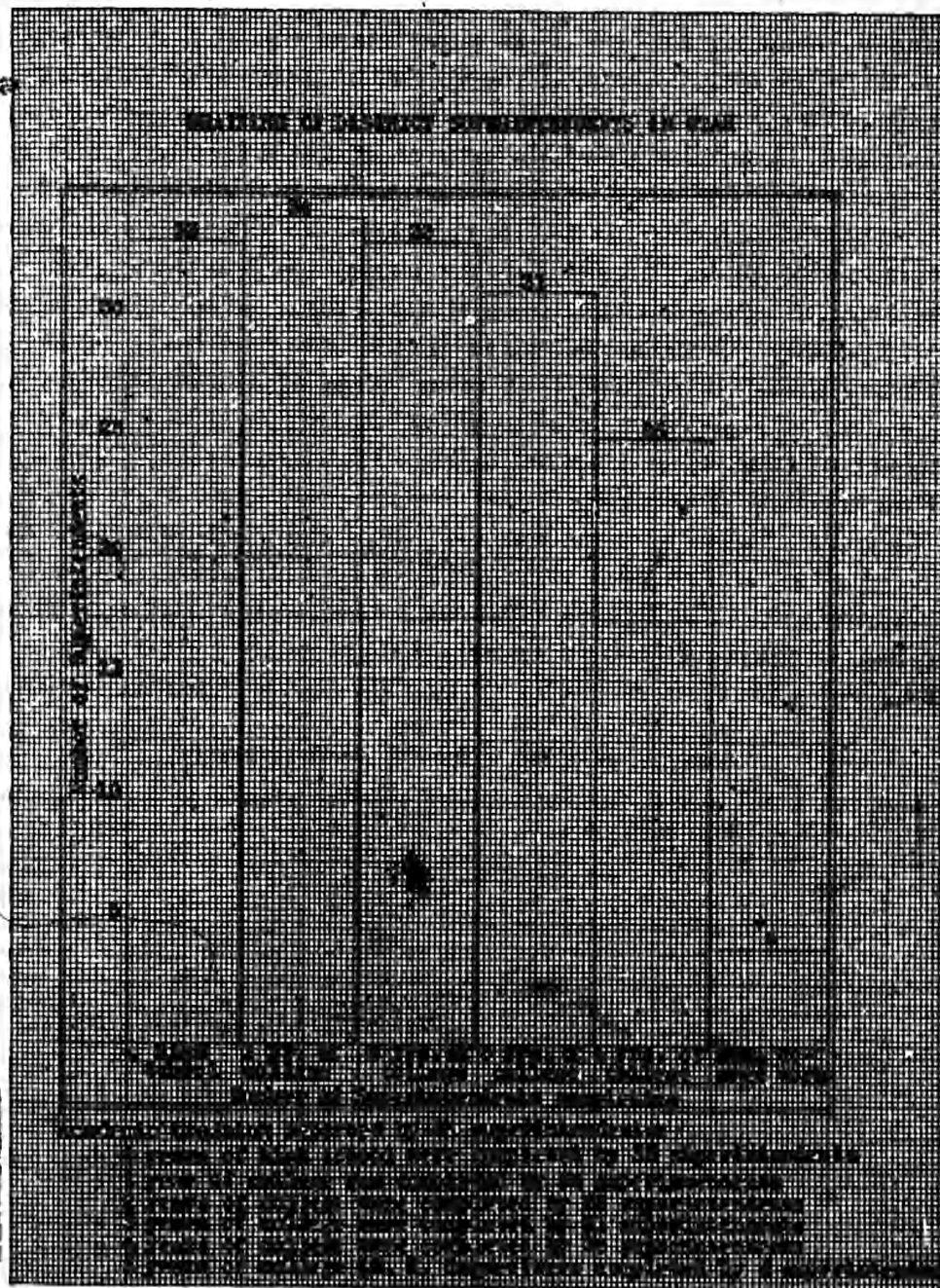


FIG. 6.—Training of district superintendents in Utah

*Educational experience.*—The experience of Utah superintendents in administration, supervision, and teaching as reported by them is shown in Table 12. The questionnaire returns failed in many cases to discriminate definitely between teaching and supervising experience and among administrative, supervisory, and teaching posi-



tions. Many "superintendents" carried on two or more of these at the same time. Some of the reports failed to differentiate between the positions of principal and superintendent. In many cases the position of principal is called that of superintendent. Names rather than functions governed the replies, though the names by which the positions were known were sometimes erroneous. The columns showing experience as superintendents and as principals are therefore not accurate, if the former is interpreted to mean experience in administration or supervision distinct from experience in teaching. Careful study of the returns indicates that relatively few of the superintendents had experience as bona fide superintendents in other districts or cities before they accepted positions held when replies were made. In general, the superintendents have come up to their present positions through the avenue of the high-school principalship. Nineteen served as high-school principals, 14 as elementary-school principals, 5 in other types of educational work.<sup>10</sup> The district superintendents have on the whole a very creditable amount of experience in school work. They are bona fide members of the teaching profession.

*Salaries.*—Table 14 gives the salaries of the superintendents outside of cities, showing an average and a median salary of approximately \$2,500. Twelve superintendents receive approximately \$2,000 or less, 9 receive \$2,200 to \$2,900, inclusive; 10, \$3,000 to \$3,300, inclusive; and 4, \$3,600, \$3,700, \$3,800, and \$4,500, respectively.

TABLE 14.—Salaries of district superintendents

District	Salary	District	Salary	District	Salary
Rich	\$600.00	Beaver	\$2,400.00	Weber	\$3,000.00
Plute	1,100.00	Millard	2,400.00	Nebo	3,200.00
Wayne	1,200.00	North Sanpete	2,400.00	Alpine	3,800.00
Daggett	1,500.00	North Summit	2,400.00	Park City	3,300.00
Garfield	1,800.00	South Sanpete	2,500.00	Tooele	3,300.00
Duchesne	2,000.00	Uintah	2,500.00	Granite	3,800.00
Emery	2,000.00	Wasatch	2,600.00	Box Elder	3,700.00
Kane	2,000.00	Davis	2,900.00	Tintic	3,800.00
San Juan	2,000.00	Cache	3,000.00	Jordan	4,500.00
Washington	2,000.00	Carbon	3,000.00		
Morgan	2,008.00	Iron	3,060.00	Average	2,544.71
Utah	2,082.00	Serler	3,000.00	Median	2,500.00
Grand	2,200.00	South Summit	3,000.00		

Taking into consideration the general situation in Utah, salaries paid teachers and public officials, it seems reasonable to expect that a minimum of \$3,000 per year is a necessity, if capable superintendents are to be employed and retained. At present 14 of 35 district superintendents are receiving \$3,000 or more. In the State of New York the salaries of district superintendents (because of the different administrative system they have fewer responsibilities than district superintendents in Utah) average \$3,600. In New Jersey superin-

<sup>10</sup> Overlapping due to combinations of positions.



tendents receive \$4,000. In Illinois and Pennsylvania a few county superintendents receive as high as \$10,000, while in such States as Alabama and Louisiana in which the county system prevailing is similar to that of Utah, a number of superintendents are receiving \$4,000 to \$6,000. Salaries paid city superintendents in Utah average higher than those paid district superintendents. For the five independent cities they are: Salt Lake, \$6,500; Logan, \$3,425; Provo, \$3,600; Ogden, \$5,500; Murray, \$3,200; average, \$4,445 per year.

*General office expenses.*—Other columns in the table show allowance for travel expense, clerical help, etc. On the whole, and especially as compared with county or rural school superintendents in these respects in other States, the Utah situation is a fairly good one. Some superintendents need more clerical help; adjustments of travel allowance, particularly for supervisors, are desirable in certain districts. A better situation can be brought about if certain adjustments between work and expenses of superintendents and county-district board officers (see p. 59) are made.

TABLE 13. Number of different appointees serving as district superintendent and number of years each served, 1915-1926

(X denotes one appointee; XX denotes 2 appointees)

District No.	Number of appointees	Years of service of each appointee										
		1	2	3	4	5	6	7	8	9	10	11
1	4	X	X	X		X						
2	5	XX	X	X	X							
3	2		X									
4	1									X		
5	3	X		X				X				X
6	1											
7	5	XX	X	X	X							X
8	4		XX	X	X							
9	1											X
10	2		X							X		
11	5	XX	XX			X						
12	4	X	X	X		X						
13	2		X							X		
14	3	X							X			
15	7	XXXXXX	X		X				X			
16	4	XX	X					X				
17	3		X		X	X						
18	4		XX	X	X							
19	2		X	X					X			
20	4		XX	X	X							
21	2			X					X			
22	2			X					X			
23	2		X							X		
24	3		X	X			X					
25	3	X	X						X			
26	1											X
27	5	X	XX	XX								
28	2		X	X					X			
29	3			X	XX							
30	2				X	X	X					
31	2			X					X			
32	2	X									X	
33	3	X	X						X			
34	2				X			X				
Total	100	21	25	17	10	8	2	3	4	4	1	4

Median term in years..... 3.7  
Average term in years..... 3.2



*The superintendents' appointment and tenure.*—Appointment of district superintendents is for a two-year term, according to the law governing the matter. Obviously two years is too short a time for any person, however well qualified, to do constructive work in so important and technical a position as superintendent of schools, where far-reaching policies are necessary to efficiency. Actual years of service may, however, have little bearing on the length of the initial appointment, if the board is disposed to reappoint superintendents from term to term and if the board itself is a continuous one. To ascertain the facts in regard to the service of superintendents in Utah a study was made of the time served by superintendents in 31 districts from 1915, when the present organization was effected, to January, 1926, a period of approximately 11 years. The results are shown in Table 15 and are summarized graphically in Figure 7.

The length of service of 100 superintendents studied varies from one year served by 21 superintendents to 11 years served by 4 superintendents. The median and average length of terms are 3.7 and 3.2 years, respectively. The column showing the large number of superintendents who have served only one or two years (and shown in fig. 7) indicates another serious side of the situation. The fact that a few served long terms raises the average term but does not help the districts in which frequent changes occur. As the graph shows, of 100 superintendents, 21 served one year; 25, two years; 17, three years, making 63 superintendents who have served three years or less. It seems reasonable to expect that an average of five years of service with fewer one, two, and three year terms would add to the efficiency of the schools and the school systems. Of the 100 superintendents studied, only 22, about one-fifth, served five years or more.

*General factors concerning the superintendents' work.*—The tables show the number of teachers, the number of school buildings, the size of districts, and the number of miles from the superintendent's office to the most distant schools. These are matters conditioning somewhat the type of administration and supervision which should prevail in the respective school systems. Compared with similar conditions in other States, Utah is favorably situated for the professional management of rural schools. There are, however, wide differences in the superintendents' load among the districts, as shown in the tables. This suggests the necessity of adjustments in order more nearly to equalize educational opportunities, especially those concerned with professional administration and supervision. Recommendations in this and other sections are made in view of these disparities and with the idea of assisting to overcome the undesirable effects that result from them.



*How the superintendents distribute their time.*—A survey of time distribution for one week of the superintendents' time (in most cases pronounced by superintendents a typical week) was made in the Bureau of Education from forms sent out by the State department of education. From the study made, though it covered a very

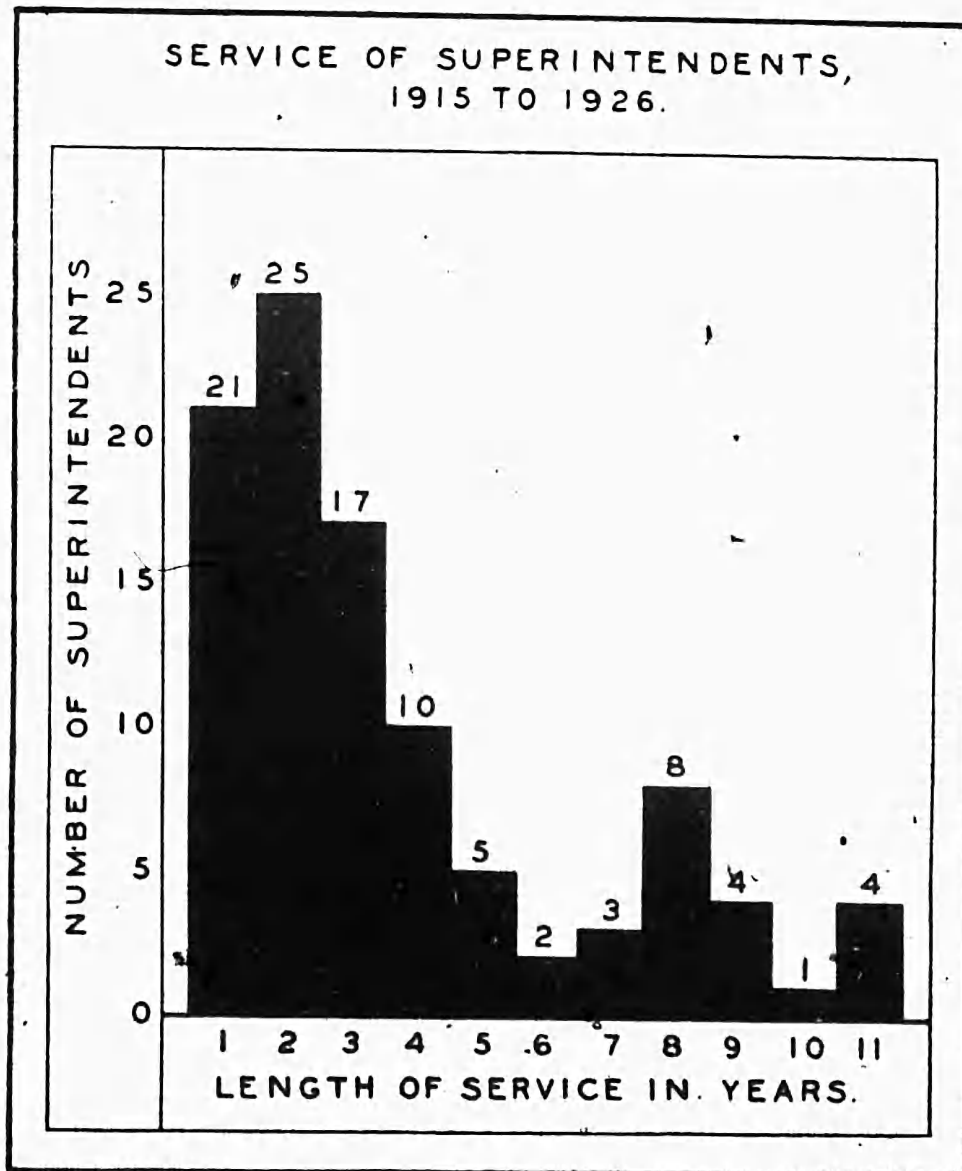


FIG. 7.—Length of service of district superintendents in Utah  
Total number of superintendents, 100. Length of service varies from one year served by 21 superintendents to 11 years served by 4 superintendents. Median term in years, 3.7.

limited period of time, two significant things are apparent: First, there is no general agreement among superintendents in Utah as to the relative importance of their functions and duties, judged by the way in which they distribute their time among them. This is true even of so important a function as that of supervision. In a State so well organized for school administration, it seems reasonable to



expect more unity in action and purpose among superintendents as to the amount of time to be spent on such essential duties as those classified in the questionnaire form under supervision, administration, professional load, and the like. The wide differences are probably another evidence of the need of systematic and constructive leadership and state-wide minimum standards.

Second, it is noticeable that while community activities occupy a large part of the time of a number of superintendents (as might well be expected in a State organized as is Utah) examination of the details of the replies to this part of the questionnaire (not published in the table) indicates that there is no accepted understanding of the kind of thing which constitutes significant community work on the part of the superintendent. The replies indicate that strictly school activities, such as those concerned with parent-teacher associations or other parent agencies, work with patrons, meetings with business men and citizens in general, have received relatively little attention from the superintendents. A better understanding of what good community work means would result in more effective expenditure of that part of the superintendent's time devoted to so-called community work.

The initiation of this study by the State department sets a very excellent and desirable precedent. It is believed by members of the staff that a similar study extending over a longer period of time could well be made the basis of a superintendent's conference or even of a series of conferences in which a tentative allotment of time among the superintendents' functions could be agreed upon for try-out—one based on needs and conditions in Utah. As a result, a more intelligent distribution of the superintendents' time would be possible and such unity in administrative and supervisory procedure as is desirable promoted. Conferences of superintendents (devoted to this or other topics or studies) would enable all superintendents to profit by the successful practice of each and to avoid repetition of errors which result when each superintendent learns independently by the trial and error method. Of the latter there is a good deal of evidence among superintendents in Utah.

*General conclusions concerning the superintendents and their work.*—As there is a lack of adequate professional leadership and guidance from the State department to the district superintendent's office, so there is a similar lack of adequate professional leadership and guidance from the district superintendent's office to the supervisors, principals, and teachers. In quality of and arrangements for supervision; in school organization; in teaching methods; in use of facilities, building, equipment, personnel, and the like; familiarity with modern methods in good administration is not generally mani-



festated among superintendents in the State. A good school here and there, good teachers here and there, do not imply a good system. Outstanding personalities and schools will be found in any type of school organization. Utah has a good organization. It should insure that in every district and in every school of the State at least reasonably good minimum standards be maintained as to quality of instruction, type of teachers and principals, arrangement for supervision, pupil achievement, and the like. Good administration means unity (not uniformity) in reaching reasonable minimum standards set up for the system in all its parts and opportunity and encouragement for progress beyond them wherever possible. This kind of administration is rare in Utah.

In the more favored county districts and those with adequate tax valuation for the support of the school system conditions such as professional and clerical assistance, arrangements for travel expenses, equipment, and the like, are generally favorable. There is a dearth of supervisors, and there are superintendents deficient in the technique of supervision. Suggestions concerning this situation are given elsewhere. There are, however, a number of districts in Utah in which the taxable wealth is limited and in which low salaries prevail, including those paid superintendents, due in part to lack of wealth and in part to lack of appreciation of the importance of the professional side of education. Children who live in districts poor in taxable wealth are entitled to as good schools and to as capable superintendents as are those living in rich districts.

In spite of the good work done in consolidation, there are still districts in which there is not enough work or the financial resources to justify the payment of full time and qualified superintendents. There is still opportunity for intelligent and constructive work in consolidation within districts and in cooperation among districts to the end that better school conditions prevail in all parts of the State.

The survey staff wishes to bring to the attention of school officials certain practices found successful in other States in remedying situations similar to those described in Utah.

There is a good deal of justification for subsidizing local superintendents' and supervisors' salaries from State funds. The New England States, New York, New Jersey, and Maryland are among States in which superintendents or supervisors or both are paid wholly or in large part from State funds. This plan equalizes tax burdens and school opportunities to a certain extent and may be considered as satisfying some of the purposes of equalizing funds established in some other States. The cost of systematizing and coordinating school effort is by most authorities considered as prop-



erly a State charge. This is especially true when expert administration and supervision are pertinent needs, as the survey staff agrees is the case in Utah. Unquestionably, some plan should be adopted in Utah which will provide remuneration adequate to encourage some keenness of competition among well-qualified persons for positions as district superintendents.

The staff believes also a plan of combining districts for the employment of superintendents and supervisors, thereby making larger salaries possible, could well be adopted in Utah in county districts in which valuations are low and schools few in number. Among the townships in the New England States the practice prevails of employing a union superintendent who supervises two or more townships and is paid by the combined territory under his supervision. It is recognized that there are some objections to similar arrangements in Utah, but it is believed that, on the whole, sacrifice should be made in the number rather than in the efficiency of persons employed as superintendents and supervisors. In at least one district, a combination of superintendent and high-school principal might be effected. Many situations could be cited in which several small schools could be combined under one principal. By combining salaries of two or more positions, it is often possible to secure persons of larger caliber, better training, and with broader qualifications. To be administratively effective, any school system must have a strong superintendent at its head. Adjustments adapted to secure this end should be considered by school boards and school officials in Utah.

*Conclusions and recommendations.*—The position of district superintendent in Utah corresponds closely to that of city superintendent in Utah and other States. There is demand for ability, training, and experience of a similar order. To secure the utmost in educational value for the money expended on schools in each of the several districts, superintendents should be selected on the basis of educational preparation, successful experience in similar positions, and special fitness for the particular place under consideration. Responsibility for securing such superintendents should be shared by the State and the local board. Definite qualifications of a high order should be exacted in the certification law. All or part of the salary should be paid from State funds, with a minimum set up by the State large enough to secure efficient persons in all districts. The term of the superintendent should be during good service, and the salary should be commensurate with the importance of the work, certainly not less than that paid by cities in the State to their superintendents and to school officials employed in higher institutions of learning in which the requirements are similar. The State will par-



ticipate actively in the selection of superintendents by setting up high standards for certification. The local board should select among available candidates, using its best judgment and seeking both within and without the State for the best-qualified person. Selection of superintendents in Maryland is an example of a method of selection practiced in some progressive States. The county board of education selects the superintendent. The State sets up standards through certification and exercises the right of approval or disapproval of candidates selected for the position. Two-thirds of the salaries of superintendents are paid from State funds in this State.

The survey staff believes that a minimum salary for all superintendents of not less than \$3,000 per year should be set up by the State, paid in whole or in part from State funds; that districts should be encouraged to increase this amount from local funds whenever possible; that the State department, through its research division, should make a careful study of the quality of administration and supervision in the State, recommending plans to local boards and cooperating with them in securing adjustments through further centralization of work (usually, but not necessarily, of schools or territory) which will enable all the schools of the State to come under adequate professional administration and supervision. Elsewhere in this report further suggestions are made which should be considered in connection with these, particularly those concerning supervision, professional guidance, in-service training, etc., for administrative and supervisory officers.

#### CITY SCHOOL DISTRICTS

In this section of the report no attempt is made to make recommendations for any one city; it is the purpose rather to call attention to those provisions of the school law relating to cities of the first and second classes in Utah that conform to the generally accepted principles of school administration, and to those that should be amended to conform to such principles. But before discussing the city school districts, it is necessary to explain how the cities of the State are classified.

The cities of Utah are divided into three classes, according to population. Those having a population of 50,000 or more are designated as cities of the first class; those having a population of 7,000 to 50,000 as cities of the second class; and others as cities of the third class. Whenever any city of the second class attains a population of 50,000 or more, or any city of the third class, or town, attains a population of 7,000, such fact is certified by the mayor or board of trustees to the governor. Upon receipt of such certification the governor shall declare such city, or town, to be of the first



or second class. When a city of the third class, or town, is organized as a city of the second class it automatically becomes an independent city school district, since the State constitution provides that in cities of the first and second classes the public school system shall be controlled by a board of education of such cities separate and apart from the counties in which said cities are located.

It is doubtful whether it is a wise constitutional provision to require a city of the third class, or a town, as soon as it has attained the population required for a second-class city to organize as a separate school district and to have the boundaries of the school district coterminous with those of the municipality. As it now is, territory adjacent to the city can not be annexed for school purposes unless it is also annexed for municipal purposes. A city school district may be so located as to be surrounded by another school district, when the two might be consolidated into one district, thereby preventing duplication of high schools and the overhead expense of administration. For example, a plan is under consideration for the erection of a county high school in or near the city of Ogden. The question arises, Why have two high schools in the city under separate management—one under the city board and the other under the county board? As another example, the city of Logan may be cited. This city is located almost in the center of Cache County, and is its principal trading and social center; but the schools of the city are independent, when it would no doubt have been to their advantage and to the advantage of the county if the schools of the city of Logan had been included in the county district.

The chief advantage of such an arrangement would be that the high schools could be better located with reference to population, and the overhead expense of administration could be considerably reduced. If, for example, a city district is paying its school superintendent \$3,600 a year and the county district \$3,600, one superintendent for the consolidated district could be employed for less than the combined salaries of the two, and one school clerk and other administrative and supervisory officials for less than the combined salaries now paid by the city and county districts. The consolidation of county districts has proved of advantage, and in some instances the consolidation of city and county districts would also prove mutually advantageous. This might not be the case if the county district were purely agricultural and the city industrial and commercial, but when the interests of the people living in the county center in a small city, no valid argument can be advanced for their separation in school matters. As it now is, third-class cities—that is, cities having a population of less than 7,000—are with one exception part of a county district. Just because a city attains a certain



population is no reason why it should become an independent school district. In the opinion of the survey staff a third-class city, when organized as a second-class city, should not become an independent city school district except upon the approval of the State board of education. The question to decide in each instance is whether the schools of the city will become more efficient without affecting the efficiency of the district from which the city separates when it is organized as a second-class city.

No hard and fast rule should apply; so it is recommended that the constitutional provision requiring cities of the third class to become independent school districts when organized as cities of the second class be repealed. It is true that the State legislature can fix the size of cities of the first and second class, as was done a few years ago when it enacted a law providing that a city of the third class must attain a population of 7,000 instead of 5,000 as heretofore before it could become a city of the second class. Possibly it might be advantageous for a city of the third class, or a town, to organize as a city of the second class for municipal purposes when it attains a population of 7,000, but it does not necessarily follow that when a city attains this size it should become an independent school district.

Although the boundaries of the independent city school districts are coterminous with those of the municipal corporations and are independent of the county school districts in the administration of their schools, they are as much a part of the State system as are the county districts. Certain privileges are, however, granted the city districts that are not granted the county districts, as the selection of textbooks, the certification of teachers, etc., but the principle that education is a State and not a municipal function is fully recognized. In Utah, as in most of the other States of the Union, the city school systems are regulated by general State law and not by special city charter provisions. The State law relating to the city school districts of Utah provides for methods of electing boards of education, their size, qualifications of board members, the powers and duties of board members, and for the methods of raising funds for the support of the schools, etc.

Although the city school boards are elected by the people of the city they are officers of the State and are directly responsible to the State for their acts, as are the school boards of the county districts. An independent city school district is independent of the county, but not of the State. This fact, which can not be too strongly emphasized, is so well stated by the committee that made a survey of the Salt Lake City Schools in 1915 that it is quoted. The committee says:

The powers possessed by the board of education are derived from the State and not from the city; the State can add to or subtract from these, as it



wills, or it could abolish the board of education entirely and substitute some other agency to do its work. If the board needs new or additional powers, it must ask the legislature for them; if its funds are not sufficient for the work the legislature has given it to do, it must present its case to the legislature and ask for an increase in the school tax rate.

The city school boards of Utah do not even have to submit their school budgets to the city officials. They make up their budgets within statutory limits, and the taxes are collected by the county treasurer and turned over to the school board. This fiscal independence of the city school boards is in accord with the opinion of all authorities on school administration and with the practice in a majority of the cities of the country.

#### THE SCHOOL BOARD

The school law provides that in cities of the first class the board of education shall consist of 10 members, 2 to be elected from each ward, and that in cities of the second class the board of education shall consist of 5 members, 1 to be elected from each ward.

The size of the board in cities of the second class is the ideal and practical size. In cities of the first class the size of the board might well be reduced to 5, or at least to not more than 7 members. A board of larger size is more likely to break up into committees, which seldom, if ever, add to the efficient administration of a school system. The small board usually conducts business with greater dispatch than does a large board, and there is less tendency for individual board members to concern themselves with matters that should be considered by the entire board.

No reason could be given by various persons interviewed as to why school-board members in the cities of Utah should be elected by wards. This method of selecting board members was once common in American cities, but nearly every city has discontinued the plan. Of 34 cities of 100,000 or more population reporting to the Bureau of Education, in only 4 are the board members elected by wards, and in 2 other cities the board members are elected partly by wards and partly at large. Of 171 cities with between 30,000 and 100,000 population reporting to the Bureau of Education, only 15 elect by wards and 14 partly by wards and partly at large. In cities of less than 30,000 population election by wards is very rare indeed.\* In most cities electing board members by wards, each member considers himself responsible to his ward constituents rather than to all the people of the city. Several persons in Utah, when questioned regarding ward elections, said that in some of the cities of the State there is a tendency on the part of patrons when they wish to present some matter to the school board to present it first to their ward representative, when, as a matter of fact, it should be presented first to the executive officer of the school board.



In the cities of the country that have abandoned the ward method of electing school-board members the universal verdict has been that: (1) Usually a better class of business and professional men are elected; (2) local prejudices do not dominate; (3) members pull together in the interests of the whole district; (4) men with a broader conception of the function to the school are elected; (5) bargaining and "logrolling" are eliminated.

Possibly the election of school-board members by wards in the cities of Utah has not been as undesirable as in other cities of the country, but it is fraught with the danger of bringing members to the board of education who have a narrow conception of the function of the schools of the city as a whole.

School-board members in cities of the first class are elected for a term of four years. One member from each ward is elected biennially, thus making it possible to have five new members every two years. If the size of the board of education were reduced to five members elected at large, the term should be five years, with one member elected each year, as is the practice in cities of the second class, where the term is five years with one member elected annually.

Several cities in the State have taken a forward step by abolishing all standing committees, and this step should be taken by the other cities. Committee organization has been found to be an inefficient method of conducting school business. In the early days, or before the advent of the professionally trained city school superintendent and when boards of education exercised greater executive authority than they now do, there may have been need of committees, but to-day this need does not exist. The board of education that is most efficient acts as a legislative body and assigns all executive duties to the superintendent of schools. All matters of legislation should be considered by the entire board. Too often a standing committee performs functions of the board itself, and when the report is submitted the school board acts as a "rubber stamp" upon the committee's action. When teachers are to be elected the entire board should pass upon the names presented by the superintendent of schools. Committee action in such case is not necessary, if the superintendent is given authority to nominate teachers.

When school buildings are to be erected all members of the board should be equally interested in the matter; but if it is referred to a committee, only those on the committee give the matter much consideration. The facts of the case should be presented to the board by the superintendent and acted upon by the board as a whole.

The same is true of the school budget, which the superintendent is required by law to prepare. It should be presented to the entire board and not to a committee on finance.



X The Utah boards of education that are still organized on the committee plan should consider abandoning it. Methods of administering city school systems have so changed that committees are no longer necessary. The trained executive officers of the board would take the place of standing committees and present recommendations for the entire board to consider.

N Although the salary paid school board members in the cities of Utah is nominal, \$100 a year to each member, the practice can not be commended, for practically the same reasons as are set forth in the section of the report treating of county school districts.

Since the State law does not define the powers and duties of city superintendents of schools, it is recommended that their more important duties, such as are outlined in the section of the report treating of State and county superintendents, be incorporated into State law.

#### SUMMARY OF RECOMMENDATIONS.

The following recommendations are offered concerning the general plan of administrative organization for the State of Utah:

*State board of education.*—1. That the State board of education be appointed by the governor from among the citizens of the State. If some type of geographical representation is considered desirable, it is recommended that representation be on the basis of judicial districts as recommended elsewhere for the appointment of the State board of higher institutions.

2. That the board be made up in large measure of laymen rather than professional educators or ex officio officers. It should be composed of nine members each appointed for a term of nine years in such a way that one term will expire annually.

3. That service on the board be without remuneration, but the present practice of paying per diem and expenses is a good one and should be continued.

4. That the functions of the State board of education be set forth in the statutes. They should include the appointment of a State superintendent of public instruction, all certificating authority, general supervision of the State school system, and other functions set forth in this chapter.

5. That the board, under legislative authorization, have control of certain funds specifically provided for equalization and standardization purposes.

6. That the board revise the qualifications demanded for certificates of teachers, supervisors, and administrative officers in accordance with the suggestions in this chapter.

*The State superintendent.*—7. That the State superintendent of public instruction be appointed by the State board of education for a term continuing during good service.



8. That the board be free to choose as the State chief school officer an educator qualified by training, experience and eminent service, and of high personal character selected from a list of eligibles representing as comprehensive a field as possible. Educators within and without the State should be considered in the selection. The board should be governed wholly by fitness for the position and be free to pay the salary necessary to secure the person best qualified.

9. That if the people of Utah are unable to accept the preceding recommendation, consideration be given to the following alternatives: (1) Appointment by the governor; (2) election at a time when voting will be distinct from election of other State officers; (3) that the position be made more attractive by an increase in salary and the lengthening of term to six years.

10. That the chief duties of the State superintendent be defined in the law.

11. That if the State superintendent is appointed by the State board of education as recommended, he be the executive officer of the board.

*State department of education.*—12. That the State department of education be reorganized and enlarged as outlined in this chapter.

13. That the work of the department, particularly that of supervision, be coordinated and that the functions of the several sections be defined in regulations of the State board of education.

14. That all supervisory functions be under the direction of a director of supervision in order that this service be coordinated and placed on a high professional plane.

15. That a research and statistics service and a State teacher's service be provided in the State department as immediate necessities and that gradually, as conditions warrant, other recommendations herein contained be adopted.

16. That the staff be selected on the nomination of the State superintendent of public instruction by the State board of education and be made up of persons eminently qualified for the work for which they are selected.

17. That salaries of the staff of the State department of education be commensurate with the importance of the work assigned.

*County school district boards.*—18. That county district board members be elected annually for five-year periods, one retiring each year.

19. That election be from the district at large rather than from wards. Provision should be made that the board be representative of all sections of the district.

20. That service be without compensation other than an allowance for expenses only or for expenses and per diem.



21. That secretaries to superintendents act also as clerks to the boards of education.

22. That the position and salary of the treasurer of the board be abolished and his duties performed by the county district superintendent or his secretary.

*County district superintendents.*—23. That the district superintendent be appointed by the board of education (as at present), exercising its best judgment to select a superintendent of eminent ability and professional training and experience, for a term extending during good service rather than for two years as at present.

24. That in making the selection the board select from as wide a field as possible, not necessarily confining itself in appointment to local district or even State boundaries. Appointment should be from a list of eligibles who have satisfied requirements set up by the State board of education through its certification service. Salaries should be as liberal as the districts can afford. The sole consideration should be fitness for the position.

25. That adequate provision be made in all districts for professional and clerical assistants to the superintendents, including more and better trained supervisors; that more principals with adequate qualifications have free time for supervisory work.

26. That all or part of the salaries of superintendents and supervisors be provided from State funds, provision for this being made in the near future in order that superintendents and supervisors of adequate training and ability may be provided for the districts having low as well as those having high tax valuations.

27. That consideration be given to cooperative plans for supervision among schools and among districts as suggested in this chapter.



### Chapter III

## SCHOOL TERM, ENROLLMENT AND ATTENDANCE, AND PROGRESS OF CHILDREN THROUGH SCHOOL

The efficiency of a school system may be measured to a certain extent by the length of its school term, by the number of children of school age enrolled, and by the regularity of attendance. Other things being equal, the school system having a longer school term, a larger proportion of children of school age enrolled, and a higher average daily attendance is better than the school system that has a shorter term, fewer children of school age enrolled, and a lower daily attendance. With respect to the length of the school term Utah ranks only average for the country, but with respect to the per cent of children enrolled and in average daily attendance it ranks very high.

### SCHOOL TERM

The average number of days that the schools of Utah were in session in 1923-24<sup>1</sup> was 169. The average for the country as a whole was 168.3 days, or a difference of only seven-tenths of a day in favor of Utah. When compared with other Western States, the actual number of days that the schools of Utah were in session was less, with the exception of Idaho and Arizona. The number of days that school was in session in each of the Mountain and the Pacific States was as follows: California 181, Nevada 179, Washington 177, Wyoming 175, Colorado 174, Oregon 174, New Mexico 172, Montana 171, Utah 169, Arizona 166, and Idaho 161. In 1924-25 the average length of the school term in Utah was 171 days, an increase of 2 days over the school term of 1923-24.

Since 1880 the school term of Utah has increased at about the same rate as for the country at large, as may be seen in Figure 8.

The number of days that school was in session in 1924-25 ranged from 133 days in 1 district to 181 in another. One district had a term of 181 days, 1 a term of 180 days, 17 a term of 170 to 179 days, 9 a term of 160 to 169 days, 9 a term of 150 to 159 days, 1 a term of 140 to 149 days, and 2 a term of 130 to 139 days. In 12 dis-

<sup>1</sup> In this section data for 1923-24 are used whenever comparisons are made with other States, since these are the latest data available for the other States.



tricts the elementary schools were in session fewer days than the high schools and in 2 they were in session more days than the high schools. In 1 district the elementary schools were in session 130 days and the high schools 164 days. In another the elementary schools were in session 135 days and the high school 170 days. In the 10 other districts in which the elementary-school term was shorter than the high-school term, the high-school term ranged from 1 to 18 days longer than the elementary-school term. In the 2 districts in which the high-school term was less than the elementary-school term, 1 had an elementary-school term of 171 days and a high-school term of 162 days; the other had an elementary-school term of 169 days and a high-school term of 167 days. Such inequality in the length of school term should not exist between these 2 types of schools; nor

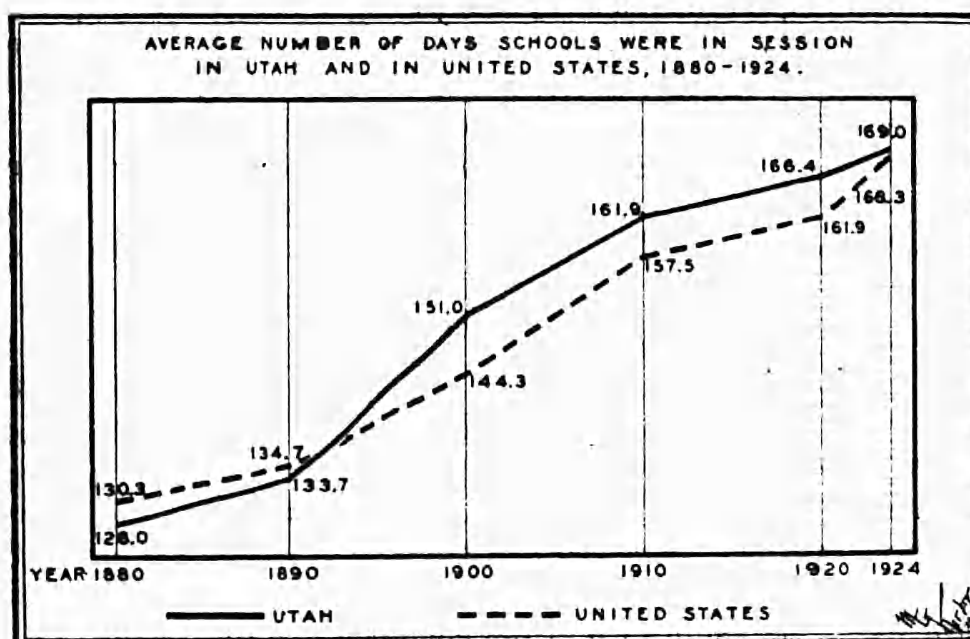


FIG. 8.—Length of school term in Utah and in United States

should some districts maintain a school term of only 130 or 140 days and others a term of 180 days. None should provide for a school term of less than 9 months with school in session 20 days each school month.

#### ENROLLMENT AND ATTENDANCE

✓ Although the length of the school term in Utah averages only a little longer than that for the entire country and less than that for the Pacific and Mountain States, the State ranks high with respect to the per cent of children of school age enrolled and with respect to average daily attendance. In 1880, 65.5 per cent of the children of school age in the United States were enrolled in school, while only 50.6 per cent of the children of Utah were enrolled, but in 1924 Utah was enrolling 88.8 per cent of its children and the United States



only 82.8. In 1925 Utah enrolled 96.5 per cent of the children of school census age.

The county districts of Utah have been enrolling a larger per cent of their school population than have the city districts, but the per cent of increase from 1900 to 1925 has been greater in the city districts. In 1900 the county districts enrolled 86 per cent of the school population and the city 77 per cent; in 1925 the county districts enrolled 96.8 per cent and the city districts 96.1. The great increase in school enrollment in Utah has been largely due no doubt to the high standard set by the compulsory attendance law, which simply reflects the valuation that the people place upon education.

The number of pupils attending daily for each 100 pupils enrolled in the schools of Utah in 1924 was 84.5, while the average for the United States was but 78.8. Only six other States had a better average daily attendance. The school district of the State having the lowest attendance had 77.4 out of each 100 enrolled in average daily attendance, or about as many as the average for the United States. The district having the best attendance had 92.5 of each 100 enrolled in average daily attendance.

Although the school term in Utah in 1924 was only seven-tenths of a day longer than the average for the United States and shorter than all but two of the other Western States, the per cent of time lost by irregular attendance was less, with the exception of Oregon. In other words Utah is making excellent use of the school term provided, when measured by school attendance, as may be seen from the following table, which shows the average number of days school was in session in 1924, the average number of days attended by each pupil enrolled, the number of days of the term lost, and the per cent of the term lost because of irregular attendance, late enrollment, or early withdrawal. The States are ranked on a basis of per cent of time lost.

TABLE 1.—*Relation of average number of days attended to length of school term in Utah and other Western States*

State	Average number of days school was in session	Average number of days attended by each pupil enrolled	Number of days of school session lost	Per cent of school session lost	Rank
Oregon.....	174	147.8	26.2	15.0	1
Utah.....	169	142.7	26.3	15.5	2
Montana.....	171	139.8	31.2	18.2	3
Wyoming.....	175	139.2	35.8	20.4	4
Washington.....	177	138.4	38.6	21.8	5
Nevada.....	179	138.2	40.8	22.8	6
Idaho.....	161	122.1	38.9	24.2	7
Arizona.....	166	123.2	42.8	25.8	8
Colorado.....	174	126.8	47.7	27.4	9
New Mexico.....	172	124.4	47.6	27.6	10
California.....	181	125.2	55.8	30.8	11
United States average.....	168	132.5	35.5	21.1	



Some of the school districts of the State are more than twice as efficient as others, when measured by the use made of the school term. The following table shows the ranking of the districts on the basis of the per cent of the school term lost, the district losing least ranking first.

TABLE 2.—*Relation of average number of days attended to length of school term in each of the 40 school districts, 1924-25<sup>1</sup>*

School district No.	Length of term in days	Average number of days attended by each pupil enrolled	Number of days of school term lost	Per cent of school term lost
1.....	154	140	14	9.1
2.....	174	158	16	9.2
3.....	171	155	16	9.4
4.....	169	153	16	9.5
5.....	174	157	17	9.7
6.....	174	157	17	9.8
7.....	171	154	17	9.9
8.....	165	148	17	10.3
9.....	169	150	19	11.2
10.....	173	153	20	11.6
11.....	173	153	20	11.6
12.....	158	139	19	12.0
13.....	171	150	21	12.3
14.....	161	141	20	12.4
15.....	168	147	21	12.5
16.....	166	145	21	12.7
17.....	155	135	20	12.9
18.....	133	115	18	13.5
19.....	146	126	20	13.7
20.....	168	145	23	13.7
21.....	171	147	24	14.0
22.....	178	153	25	14.0
23.....	156	134	22	14.1
24.....	156	133	23	14.7
25.....	156	133	23	14.7
26.....	167	141	26	15.6
27.....	171	144	27	15.8
28.....	181	152	29	16.0
29.....	173	145	28	16.2
30.....	180	150	30	16.7
31.....	167	139	28	16.8
32.....	175	145	30	17.1
33.....	170	141	29	17.1
34.....	157	130	27	17.2
35.....	172	142	30	17.4
36.....	158	128	30	19.0
37.....	171	138	33	19.3
38.....	174	140	34	19.5
39.....	138	107	31	22.5
40.....	151	115	36	23.8
State average.....	171	144	27	15.8
United States average (1923-24).....	168	132.5	35.5	21.1

In only 2 of the 40 districts of the State was the per cent of the school term (1924-25) lost by irregular attendance, late enrollment, or early withdrawal greater than the average for the United States in 1923-24. Just what may be expected of any district with regard to school attendance depends upon circumstances. A district that has a floating population would be expected to make a poorer showing than the district with a more stable population. But the loss occasioned by late enrollment and irregular attendance should not be minimized in any district.



Although the attendance in the schools of Utah is good when compared with that of other States, there is still room for improvement. The following table compiled from data collected from two small city school districts and seven county school districts shows the per cent of children attending school from 1 to 30 days, 31 to 40 days, and over.

TABLE 3.—*Distribution of attendance*

Days	Two cities	County schools of 3 or more teachers	County schools of 2 teachers	County schools of 1 teacher	Days	Two cities	County schools of 3 or more teachers	County schools of 2 teachers	County schools of 1 teacher
	Per cent	Per cent	Per cent	Per cent		Per cent	Per cent	Per cent	Per cent
1-30	0.6	1.1	1.1	3.8	101-110	0.8	1.7	1.4	4.2
31-40	.4	.5	.6	2.2	111-120	1.3	3.2	2.1	6.4
41-50	.5	.5	1.1	1.7	121-130	1.6	5.3	4.9	11.1
51-60	.5	.6	.4	1.9	131-140	2.9	7.7	10.3	5.7
61-70	.6	.5	.3	2.2	141-150	6.4	15.9	19.0	20.1
71-80	.7	.6	1.4	3.7	151-160	23.1	27.4	28.9	21.3
81-90	.8	.8	1.6	1.7	161-170	43.5	28.0	24.7	10.5
91-100	.7	1.2	.9	3.2	171-180	15.6	5.0	1.6	.3

A glance at the foregoing table reveals the fact that attendance in the one and two teacher schools is poor when compared with that of the city schools and of the county schools of three or more teachers. The following table shows the per cent of pupils in each type of school who attended more than 140 days or a school term of 7 months, and more than 160 days or a school term of 8 months:

TABLE 4.—*Per cent of pupils in each type of school*

Days	City schools	County schools of 3 or more teachers	County schools of 2 teachers	County schools of 1 teacher
More than 140 days	88.0	76.3	73.9	52.2
More than 160 days	69.1	33.0	26.0	10.8

Only a few more than half the children enrolled in the one-teacher schools attended more than 140 days, and only a very small proportion attended more than 160 days. In the county schools of three or more teachers only 33 per cent attended more than 160 days, as compared with 69.1 per cent in the cities. This poor showing is not due entirely to poor attendance but to the fact that the school term of the county districts reporting is shorter than that of the city districts.

Attention should be called to the practice of dropping a pupil's name from the roll after a certain number of days' absence and of reenrolling him upon his return to school. Once a pupil has enrolled he should be counted a member of the school until he has permanently withdrawn. In fact, every child of compulsory school



age, unless he has been legally excused, should be counted as belonging to school, whether he has enrolled or not. That is, a pupil of compulsory school age enrolling after the opening of school should be marked absent for the time he was out of school unless he has a legal excuse.

An analysis of the data furnished by seven county districts shows that, of the pupils enrolled in schools of three or more teachers, the average number of days each pupil was absent was 12.5 and the average number of days each was not enrolled was 8.9. In the two-teacher schools each pupil was absent on the average of 18.6 days and not on the roll 13.5 days, and in one-teacher schools each pupil was absent 21.3 days and not on the roll 24.8 days, or he was counted absent for less than half the time of his real absence.

Blanks were furnished a few of the districts to ascertain the causes of absences. In some instances no records showing causes of absence had been kept, and in others the records were incomplete, but from the data furnished a general idea may be had of the causes of absence in the county districts reporting.

TABLE 5.—*Causes of absence*

Cause of absence	Schools of three or more teachers	Schools of two teachers	One teacher schools
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Agricultural work.....	21.1	34.5	17.5
Other work.....	4.5	4.7	1.5
Weather.....	2.4	6.3	8.8
Illness.....	37.9	31.6	24.6
Indifference on part of parent or pupil.....	3.9	4.8	3.0
Truancy.....	.3	.3	.2
Other causes.....	29.9	17.8	44.4

Without doubt better attendance could be secured in the State if a more careful analysis of the causes of absence were made in each district. Among the causes listed, only one (illness) is legitimate, and possibly occasionally the weather, but the foregoing table shows that this is a comparatively small factor, especially in the larger schools.

#### DISTRIBUTION OF PUPILS BY AGES (5 TO 20)

Another measure of the comparative efficiency of a school system is its power to hold the children through the grades until they are 18 years of age or have completed the high-school course.

Since there are no recent data showing the per cent of children at various age levels enrolled in school, the United States Census records for 1920 are used. At that time Utah was enrolling a larger per cent of children from 5 to 20 years of age than the average for the United States, and a much larger per cent at the upper age levels, as



may be seen from the following table, which also shows the enrollment by ages for 1910 for the United States and for Utah and the per cent of increase for each age.

TABLE 6.—*School attendance of population 5 to 20 years of age, 1910 and 1920, in the United States and in Utah*

Age	United States		Utah		Increase
	1910	1920	1910	1920	
5.	(1)	18.8	6.1	8.4	2.3
6.	52.1	62.3	44.0	65.5	21.5
7.	75.0	83.3	80.9	90.6	9.7
8.	82.7	88.5	80.5	94.0	5.5
9.	86.2	90.4	91.2	94.9	3.7
10.	90.0	93.0	95.5	97.3	1.8
11.	91.2	93.9	96.0	97.6	1.6
12.	89.8	93.2	95.8	97.6	1.8
13.	88.8	92.5	95.1	97.4	2.3
14.	81.2	86.3	92.6	95.9	3.3
15.	68.3	72.9	84.6	91.3	6.7
16.	50.6	50.8	68.1	80.8	12.7
17.	35.3	34.6	48.0	61.8	13.8
18.	22.6	21.7	30.6	35.7	5.1
19.	14.4	13.8	20.7	23.2	2.5
20.	8.4	8.3	12.2	14.0	1.8

(1) No data.

Figure 9 shows the per cent enrolled at each age from 5 to 20 years of age in Utah, California, and Idaho, and the average for the United States.

With the exception of Idaho, the other two States enroll more children 5 years of age than does Utah. The average for the United States is also higher. This is, no doubt, due to the fact that there are very few kindergartens in Utah.

According to the United States Census report for 1920, Utah enrolled a larger per cent of its children in each age group both for urban and rural communities<sup>2</sup> than did the Mountain and Pacific States and the country as a whole, as is shown in the following table:

TABLE 7.—*Per cent of school attendance of urban and rural population, by age periods, 1920*

State	7 to 13		14 and 15		16 and 17		18 to 20	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Utah	95.8	95.3	93.9	93.6	70.0	71.9	26.1	24.4
Mountain States	94.5	90.6	88.5	85.8	59.3	55.8	22.8	18.4
Pacific States	94.6	93.5	89.9	88.3	55.9	54.8	23.1	20.5
United States	94.4	87.6	80.7	79.4	39.2	46.1	14.0	15.6

<sup>2</sup> According to classification by United States Census Bureau, urban communities are towns or cities of more than 2,500 population.



The above table shows that for each age group the urban and rural communities of Utah enroll practically the same per cent of children, that the Mountain and Pacific States enroll a smaller per cent of

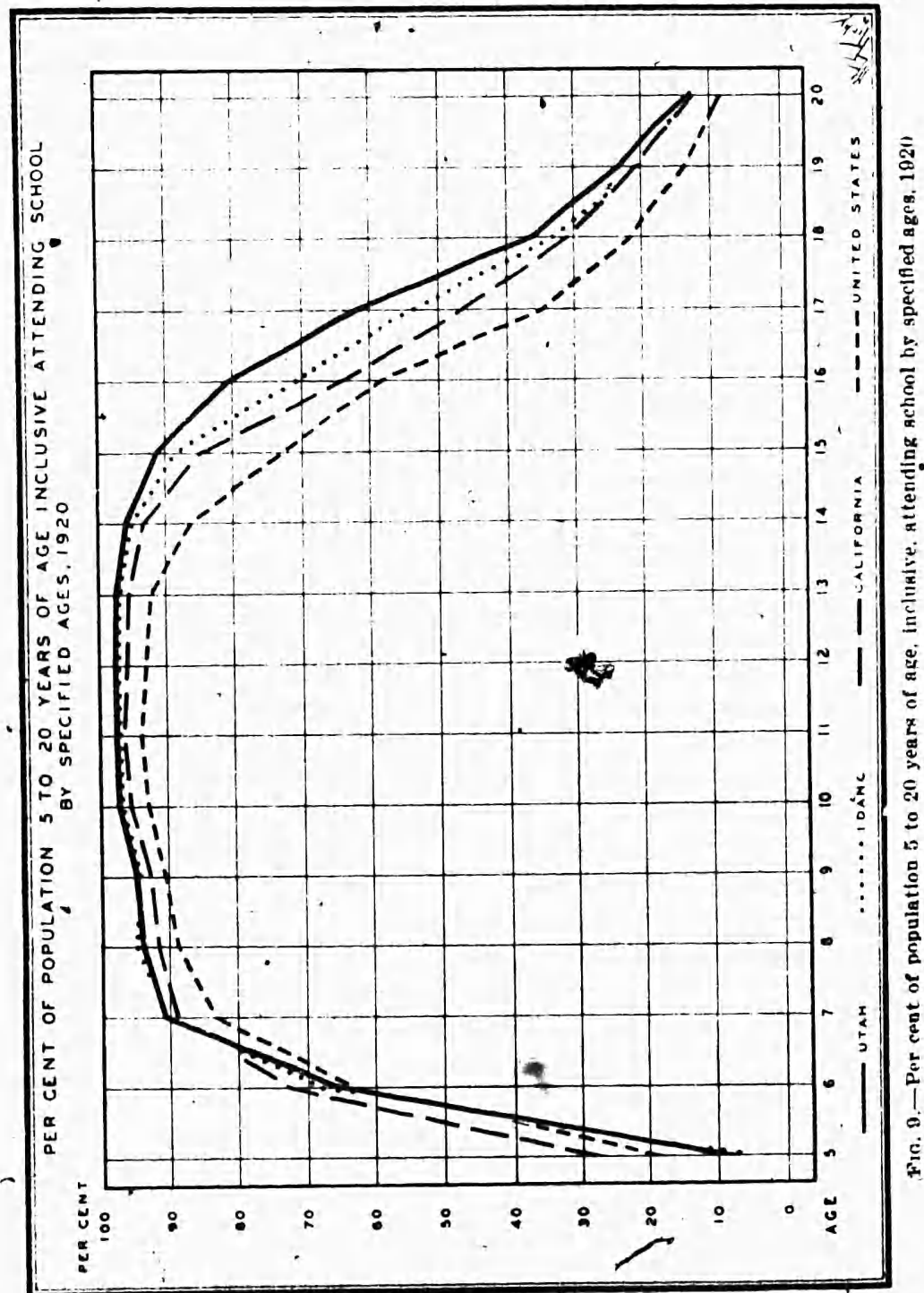


FIG. 9.—Per cent of population 5 to 20 years of age, inclusive, attending school by specified ages, 1920

the rural children in each age group, and that the United States as a whole enrolls a smaller per cent of the rural children in each of the two lower age groups and a larger per cent in each of the two upper age groups.



## DISTRIBUTION OF PUPILS BY GRADES

Other things being equal, the school system that has a larger per cent of its children enrolled in the secondary-school grades is more efficient than the one that has a smaller per cent enrolled in these grades. When measured by this standard Utah ranks above the average for the United States, also above that for the Mountain States, and only a little less than the average for the Pacific States, as may be seen from the following table:

TABLE 8.—Per cent of total enrollment in each grade, 1923-24, in the United States, the Pacific and the Mountain States, and in Utah

Grade	United States	Pacific States	Mountain States	Utah 1923-24	Utah 1924-25
Kindergarten	2.6	4.1	1.6	1.4	1.5
1	17.3	14.4	15.4	12.9	12.9
2	11.7	9.9	10.8	10.6	10.5
3	11.2	10.0	10.8	10.9	10.2
4	11.1	9.9	10.6	10.3	10.4
5	10.1	9.6	10.0	10.3	9.9
6	8.8	8.4	9.0	9.1	9.7
7	7.6	8.1	8.0	8.7	8.5
8	5.7	7.5	7.4	7.9	8.1
9	5.5	6.9	6.1	7.0	7.0
10	3.9	4.9	4.5	5.0	5.2
11	2.8	3.5	3.3	3.4	3.5
12	1.7	2.8	2.5	2.5	2.6

Considering the last six grades as the secondary school period, Utah enrolled 34.5 per cent of its pupils in these grades, the Mountain States 31.8 per cent, the Pacific States 33.7 per cent, and the United States 27.2 per cent. If the last four grades are considered as the secondary-school period, Utah enrolled 17.9 per cent in these grades, the Mountain States 16.4 per cent, the Pacific States 18.1 per cent, and the United States 13.9 per cent in 1923-24. In 1924-25, of total enrollment, 18.3 per cent was in the four high-school grades.

The table given here, showing the per cent of boys and of girls in each grade, reveals the fact that, of the total enrollment, a larger proportion of girls are enrolled in the last four grades. These grades enroll 17.8 per cent of the boys and 19.7 per cent of the girls.

TABLE 9.—Per cent of boys and girls in each grade

Grade	Boys	Girls
1	13.4	12.7
2	10.0	10.4
3	10.4	10.3
4	11.6	10.4
5	10.1	9.9
6	9.6	9.7
7	8.7	8.4
8	7.8	8.4
9	6.8	7.3
10	5.1	5.6
11	3.4	3.9
12	2.5	2.9
Total	100.0	100.0



The distribution of enrollment by grades in the county and city school districts of the State is practically the same, as may be observed from the following table:

TABLE 10.—Per cent enrolled in each grade exclusive of kindergarten, 1924-25

Grade	City districts	County districts
1	13.3	13.0
2	10.5	10.6
3	10.2	10.5
4	10.2	10.7
5	10.0	10.2
6	9.7	9.8
7	8.8	8.6
8	8.2	8.2
9	7.0	7.0
10	5.4	5.3
11	3.7	3.6
12	3.0	2.5
Total	100.0	100.0

In 1924-25 the five independent city districts of the State enrolled 36.1 per cent of the total enrollment in the last six grades, and the county districts enrolled 35.2 per cent. The cities enrolled 19.1 in the last four grades and the counties 18.4. Thus, with respect to holding the children in the upper grades, the cities show a very slight superiority over the counties.

### PROGRESS THROUGH SCHOOL

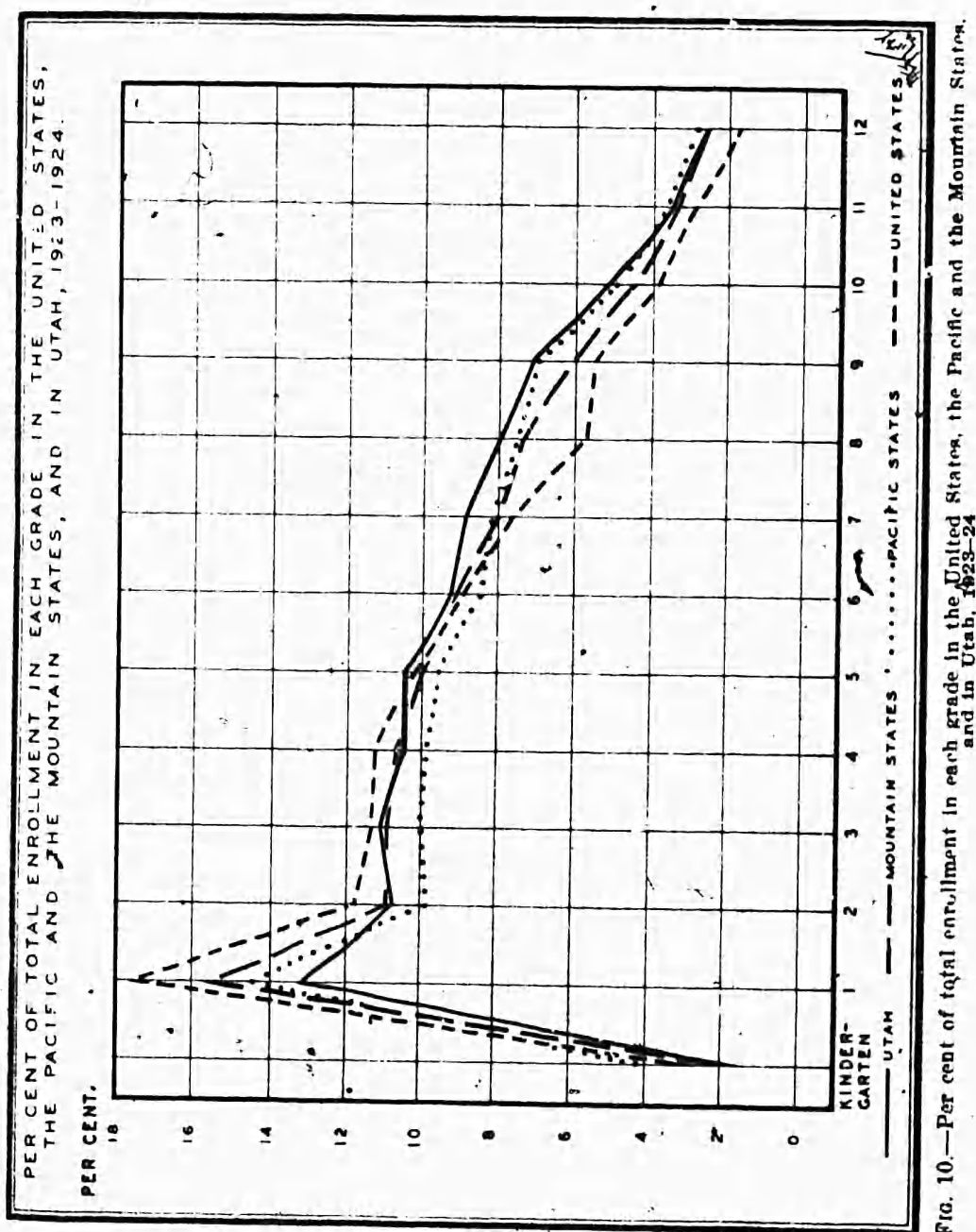
A promotion rate of 90 per cent based upon the number of children enrolled at the close of the term is generally considered an acceptable standard. Measured by this standard the schools of Utah are promoting a good per cent of the children enrolled at the close of the term, the average promotion rate for the State for the year 1924-25 being 93.2 per cent. The average for the city and county districts is 93.6 and 93 per cent, respectively. The following table shows the per cent promoted in each grade for the county and city school districts:

TABLE 11.—Per cent promoted on enrollment at close of school year

Schools	Grades												Average
	1	2	3	4	5	6	7	8	9	10	11	12	
County.....	87.0	93.3	93.6	94.6	94.1	96.2	91.9	93.6	92.4	91.5	94.8	94.2	93.0
City.....	85.7	94.3	96.8	97.0	95.3	96.6	95.6	91.8	92.6	90.2	89.5	94.7	93.6



If the promotion rate be computed on the basis of enrollment for the term, the average rate for the county districts is higher than that for the city districts, the rate for the counties being 88.7 per



cent and for the cities 79.7 per cent. This difference is due to the fact that the per cent of withdrawals in the city districts is greater than in the county districts, the withdrawals in the city amounting to 14.9 per cent and in the counties to only 10 per cent.



The following table shows the per cent of withdrawals, retentions, and promotions in each grade for the two classes of school districts:

TABLE 12.—*Per cent of withdrawals, retentions, and promotions, in county and city school districts, by grades*

Schools	First grade			Second grade			Third grade			Fourth grade			Fifth grade			Sixth grade			Seventh grade		
	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions
County.....	13.2	12.1	74.7	8.5	6.1	85.4	8.5	6.9	85.6	8.2	4.7	87.1	8.9	5.6	85.5	8.2	4.4	87.4	9.8	5.4	84.8
City.....	20.3	11.5	68.2	17.0	4.7	78.3	13.7	2.9	83.4	14.3	2.6	83.1	14.7	3.9	81.4	10.4	3.3	86.3	11.9	4.0	84.1

Schools	Eighth grade			Ninth grade			Tenth grade			Eleventh grade			Twelfth grade			Average		
	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions	Withdrawals	Retentions	Promotions
County.....	10.9	5.8	83.3	13.6	7.0	79.4	11.6	7.6	80.8	10.0	4.6	85.4	6.7	4.9	88.4	10.0	6.3	83.7
City.....	12.1	7.1	80.8	13.2	6.3	80.4	13.4	8.6	78.0	10.2	9.4	80.4	8.0	4.9	87.1	14.0	5.4	79.7

The promotion rate varies from 61.8 per cent to 90.6 per cent among the 40 school districts of the State, based upon the total enrollment for the year; and from 83.3 per cent to 97.2 per cent, based upon the enrollment at the close of the school year. Upon the latter basis, only five of the districts have an average promotion rate of less than 90 per cent.

The following table shows that a larger per cent of boys withdraw from school and that a smaller per cent are promoted, both on the basis of total enrollment and of enrollment at the close of the term:

TABLE 13.—*Per cent of withdrawals, retentions, and promotions by sex, on total enrollment; also per cent promoted on enrollment at close of term*

	With- drawals	Reten- tions	Promo- tions	Promotions on enroll- ment at close of term
	Per cent	Per cent	Per cent	Per cent
Boys.....	12.7	7.6	79.8	91.3
Girls.....	10.8	4.4	84.8	95.3

No data are available in the reports of the State department of public instruction showing causes of failure, but some data on this



point were collected from two of the small city districts and from seven of the county districts for the first eight grades.

The following table shows the per cent of pupils who withdrew, per cent promoted, and per cent failed, with causes of failure for two of the small city schools and for schools of one teacher, two teachers, and three or more teachers:

TABLE 14.—*Causes of failure*

Schools	Per cent dropped	Per cent promoted	Per cent failed	Causes of failure					
				Inability	Lack of application	Work	Irregular attendance	Late entrance	Other causes
				Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.
Schools of two cities.....	7.0	85.6	7.4	62.6	12.6	2.5	19.7	1.5	1.0
One-teacher schools.....	15.1	77.6	7.2	20.0	36.6	0	23.4	16.7	3.3
Two-teacher schools.....	15.5	80.9	3.6	32.0	32.0		32.0	4.0	
County schools of three or more teachers.....	9.6	83.5	6.9	28.2	20.0	1.5	26.2	9.4	15.2

Since the data collected regarding the causes of failure were fragmentary, it is evident that some of the schools of the State give very little attention to an analysis of the causes of failure. A record should be made showing just why a child withdraws from school and why he fails. A study of the foregoing table shows that many failures are attributed to lack of ability. Just to say that a pupil fails because of inability is not sufficient proof. There should be some objective data to show that the child does lack ability. When such is the case the school can not be held responsible for the pupil's failure, if no means have been provided by the school authorities for special classes.

Most of the other causes of failure are assigned to the lack of application and to irregular attendance. The school can and should be held responsible to a large extent for a lack of application on the part of pupils, and except in cases of illness the schools should be held responsible for most of the failures that have been attributed to irregular attendance, since it is the business of the school to see that all children are in regular attendance.

### AGES AND GRADES

In this report on ages and grades, a child entering the first grade at 6 years of age, or before his seventh birthday, and making a grade a year is considered to be of normal age if he is in the first grade during his sixth and seventh year, in the second grade during his seventh and eighth year, in the third grade during his eighth and ninth year, and so on through to the twelfth grade. Measured by



this standard, children who are at an age younger than the normal age just mentioned are considered under age, and those who are older than the normal age are considered over age.

It may be explained that the term "over age" should not be confused with the term "retardation," which is often wrongly used when referring to children who are over age for their respective grades. For example, a child who entered the first grade at 8 years of age will be over age, but he may be making normal progress and is therefore not a retarded pupil.

The accompanying table gives for all 12 grades the per cent under age, of normal age, and overage for 122,019 children in Utah for whom age-grade data were collected, and for 3,320,462 children in 830 cities of the country, also for 47,310 children in the five independent city school districts and for 74,709 children in county school districts.

TABLE 15.—Per cent of pupils under age, of normal age, and over age in Utah and 830 cities

	Under age	Of normal age	Over age
In 830 cities.....	11.97	65.65	22.03
Utah cities and counties.....	8.37	74.49	16.78
Utah counties.....	7.55	75.81	16.64
Utah cities.....	10.60	72.41	16.99

From the table it may be noted that the per cent of children over age in the schools of Utah is less than for the 830 cities, and that the per cent under age is also less. The per cent of over-age children in the city and county school districts is practically the same, but in the city districts the per cent of underage children is greater than in the county districts.

The following table gives the per cent under age, of normal age, and over age for each grade in Utah and in 830 city school systems:

TABLE 16.—Per cent of pupils under age, of normal age, and over age, by grades, in Utah and 830 city school systems

Grade	Under age	Of normal age	Over age	Grade	Under age	Of normal age	Over age
1 Utah.....	7.72	86.38	5.90	7 Utah.....	8.70	68.60	22.70
1 830 cities.....	9.47	77.44	13.09	7 830 cities.....	13.04	61.59	25.37
2 Utah.....	8.34	83.90	9.76	8 Utah.....	9.32	66.13	24.55
2 830 cities.....	8.93	71.79	19.28	8 830 cities.....	15.23	64.25	20.62
3 Utah.....	7.99	78.44	13.57	9 Utah.....	10.54	66.53	22.93
3 830 cities.....	9.23	65.97	24.80	9 830 cities.....	17.64	64.43	17.93
4 Utah.....	8.37	74.75	16.88	10 Utah.....	9.29	68.36	22.35
4 830 cities.....	9.94	61.45	28.61	10 830 cities.....	19.04	63.86	16.59
5 Utah.....	9.63	71.49	18.88	11 Utah.....	8.74	70.63	20.63
5 830 cities.....	10.52	58.67	30.81	11 830 cities.....	21.20	63.54	15.26
6 Utah.....	9.37	68.92	21.71	12 Utah.....	10.41	67.69	21.90
6 830 cities.....	11.32	59.52	29.36	12 830 cities.....	22.24	62.99	14.77

In the 830 city school systems the largest per cent of over-age pupils is in the fifth grade, reaching 30.81 per cent; while in Utah the largest per cent is in the eighth grade, reaching 24.55 per cent. It may be noted that in the lower grades the per cent of children over age is less in Utah than in the 830 cities, while in the upper grades the per cent over age is greater in Utah. The following table giving the per cent of children two or more years over age shows the same condition, which no doubt is due to the fact that there is less elimination in Utah; that is, the over-age pupil in Utah keeps on going to school, while in most other places pupils who become two or more years over age are likely to leave school.

TABLE 17.—Per cent of pupils two or more years over age

	Grades											
	1	2	3	4	5	6	7	8	9	10	11	12
Utah.....	1.43	2.55	3.23	5.57	6.53	7.13	7.49	7.41	6.61	6.58	6.99	6.25
County districts.....	1.19	1.82	3.83	5.23	5.92	6.81	7.61	7.88	8.37	6.36	7.53	6.19
City districts.....	1.82	3.82	4.83	6.13	7.91	7.65	7.28	7.88	3.86	6.77	6.22	6.34
830 cities.....	4.38	7.27	10.44	13.61	14.37	12.33	8.76	5.56	5.18	4.76	4.66	4.38

The accompanying table, giving the per cent under age, of normal age, and over age, by grades, for the city and county school districts, shows that the greatest per cent of over-age children in the county school districts is in the eighth grade, while in the city school districts the greatest per cent is in the twelfth grade.

TABLE 18.—Per cent of pupils, by grades, in city and county school districts under age, of normal age, and over age

Grade	Under age	Of normal age	Over age	Grade	Under age	Of normal age	Over age
1 County.....	5.46	89.34	5.20	7 County.....	7.50	69.57	22.93
1 City.....	11.15	81.86	6.99	7 City.....	10.77	66.93	22.30
2 County.....	5.11	86.55	8.34	8 County.....	8.03	66.53	25.44
2 City.....	8.49	79.29	12.22	8 City.....	11.49	65.44	23.07
3 County.....	7.62	79.74	12.64	9 County.....	8.71	65.70	25.59
3 City.....	8.65	76.13	15.22	9 City.....	13.38	67.84	18.78
4 County.....	7.71	76.30	15.99	10 County.....	7.89	70.62	21.49
4 City.....	9.47	72.18	18.35	10 City.....	11.54	64.74	23.72
5 County.....	9.25	72.82	17.93	11 County.....	7.64	72.07	20.29
5 City.....	10.31	69.70	20.59	11 City.....	10.29	68.60	21.11
6 County.....	8.97	70.17	20.86	12 County.....	8.99	71.77	19.24
6 City.....	10.09	66.78	23.13	12 City.....	12.39	62.00	25.61

Table 19 shows that a larger proportion of girls than of boys are under age and of normal age in each grade, and that a much smaller proportion of girls are over age, there being 20.55 per cent of boys over age and only 12.73 per cent of girls over age.



TABLE 19.—Per cent of pupils, by sex, under age, of normal age, and over age

Grade	Under age		Of normal age		Over age	
	Boys	Girls	Boys	Girls	Boys	Girls
Kindergarten	14.54	13.87	84.21	85.40	1.25	0.73
First	7.22	8.24	85.66	87.18	7.12	4.58
Second	5.08	7.71	83.23	84.62	11.69	7.67
Third	7.06	8.96	76.31	80.58	16.63	10.36
Fourth	6.90	9.91	72.30	77.31	20.80	12.78
Fifth	8.46	10.88	69.28	73.87	22.26	15.25
Sixth	7.87	10.99	64.07	74.09	28.06	14.92
Seventh	7.49	9.96	64.80	72.57	27.71	17.47
Eighth	7.98	10.74	62.51	69.97	29.51	19.29
Ninth	9.14	11.93	62.14	70.92	28.72	17.15
Tenth	8.06	10.47	64.48	72.07	27.46	17.46
Eleventh	7.35	10.04	65.33	75.62	27.32	14.34
Twelfth	8.76	11.92	65.17	69.99	26.07	18.09
Average	7.56	9.96	71.89	77.21	20.55	12.73

## ACCELERATION AND RETARDATION

In order to discover what progress the children in grades one to eight are making, data were collected from 13 school districts showing the number of years each pupil had spent in school. From these data the following table has been prepared which shows the number and per cent of children in each grade who have been making rapid, normal, and slow progress. In grade three, for example, 95 children have been in school less than three years, 3,059 for three years, 803 for four years, 119 for five years, 21 for six years, and 1 for eight years. The table also shows the per cent of children in each grade making rapid, normal, and slow progress. In grade 8, for example, 12.04 per cent have made rapid progress, 58.04 per cent normal progress, and 29.92 per cent slow progress. Of the 29,337 children included in this study, 4.28 per cent have made rapid progress, 71.67 per cent normal progress, and 24.05 per cent slow progress.

TABLE 20.—Grades and progress of pupils—Grades 1 to 8

Grade	Years in school													Per cent rapid progress	Per cent normal	Per cent slow progress
	1	2	3	4	5	6	7	8	9	10	11	12	13			
1	4,102	736	56	5										4,899	83.73	16.27
2	143	3,290	774	78	17	1								4,174	0.34	78.82
3		95	3,059	803	119	21		1						4,098	2.32	74.65
4			3	158	2,885	859	143	15	2					4,065	3.96	70.98
5		1		15	163	2,587	857	168	33	31	1			3,828	4.68	67.58
6				3	18	208	2,295	847	148	26	4	2	2	3,643	8.75	63.10
7					1	18	225	1,647	591	124	20	2		2,628	9.28	62.67
8					1	3	19	218	1,162	481	101	15	1	2,002	12.04	58.04
Total	4,117	4,124	4,065	3,954	3,901	3,561	2,896	1,987	634	126	19	3	1	29,337	4.28	71.67

Very few studies showing progress through school have been made, but judging from data given in a few survey reports it is evident that a smaller per cent of the children in Utah are making

slow progress as compared with children in those places where progress studies have been made. For example, a progress study made in Baltimore, Md., in 1920, shows that in that city 4.6 per cent were making rapid progress, 48.9 per cent normal progress, and 46.5 per cent slow progress, and a recent study in Hammon-ton, N. J., a city of 6,417 population, shows that 2.6 per cent are making rapid progress, 60.9 per cent normal progress, and 36.5 per cent slow progress.

Table 21 shows the number of pupils by grades and the grades which they repeated or skipped. For example, 135 of the present eighth grade repeated the first grade, 145 the second, 83 the third, 82 the fourth, 85 the fifth, 70 the sixth, 98 the seventh, and 78 the eighth, and of the present eighth grade 38 skipped the first grade, 79 the second, and so on.

TABLE 21.—Number of pupils repeating and skipping grades

Grade	Grades repeated								Grades skipped						
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
1	789														
2	671	268	1						15						
3	573	318	197						21	60					
4	496	302	237	152					45	80	47				
5	460	243	239	213	157				33	86	55	61			
6	363	216	207	192	176	109			69	95	69	71	79		
7	278	148	115	112	110	91	77		40	97	47	25	54	43	
8	135	145	83	82	86	70	98	78	38	79	45	33	31	59	37

The accompanying table shows by grades the per cent of children accelerated or retarded by years. For example, 0.07 per cent of the fourth grade, children are accelerated two years, 3.89 per cent one year, 70.97 are making normal progress; 21.12 per cent are retarded one year. 3.52 per cent two years, 0.37 per cent three years, and 0.05 per cent are retarded four years.

TABLE 22.—Per cent of pupils, by grade, making rapid, normal, and slow progress

Grade	Rapid progress—Years accelerated				Normal progress	Slow progress—Years retarded					
	4	3	2	1		1	2	3	4	5	6
1					83.73	15.02	1.14	0.11			
2				0.34	78.82	18.54	1.87	.41	0.02		
3				2.32	74.65	19.59	2.90	.51	.08		
4			0.07	3.89	70.97	21.12	3.52	.37	.05		
5	0.03		.39	4.26	67.58	22.39	4.39	.86	.07	0.08	
6		0.08	.49	8.18	63.00	23.25	4.06	.71	.12	.06	0.05
7		.03	.69	8.56	62.67	22.49	4.72	.76	.08		
8	.05	.15	.95	10.89	58.04	24.03	5.04	.75	.05	.05	
Total	.01	.03	.25	3.99	71.67	20.27	3.19	.52	.05	.01	.01



That the girls in the schools of Utah have been making greater progress than the boys is apparent from data already presented on promotion and age grade. The accompanying table gives per cent of pupils, by sex, making rapid, normal, and slow progress:

TABLE 23.—Per cent of pupils, by sex, making rapid, normal, and slow progress

Grade	Rapid progress		Normal progress		Slow progress	
	Boys	Girls	Boys	Girls	Boys	Girls
1			81.2	86.6	18.8	13.4
2	0.5	0.3	73.5	84.6	26.0	15.1
3	1.7	3.0	69.6	79.7	28.7	17.3
4	3.4	4.7	63.7	78.5	32.9	16.8
5	3.8	5.8	60.6	74.4	35.0	19.8
6	6.2	11.7	57.1	69.4	36.7	18.9
7	7.5	11.3	57.8	68.0	34.7	20.7
8	8.5	15.8	52.0	64.4	39.5	19.8
Average	3.3	5.3	66.4	77.2	30.3	17.5

Just why the girls of the State are making more rapid progress in school than are the boys is an interesting question, and one that needs to be answered by every school in which this is the case. Several questions naturally arise: Do the boys have less ability than the girls? Do the girls apply themselves better than the boys? If the boys do not apply themselves as well as the girls, why not? Are the courses of study and methods of teaching better suited to girls than to boys? This is one of the many problems that might be taken up by the research department recommended in another chapter of this report.

### CHILD ACCOUNTING

The State department of public instruction collects annually information regarding enrollment and attendance, enrollment and promotion by grades, enrollment in part-time and evening schools, and enrollment by subjects in high schools. These data are published in the biennial reports of the State department and are of great value for comparative purposes.

There is need, however, for more information regarding attendance, promotion, etc. The data on enrollment and attendance show the number of children under 6 years of age enrolled, the number who have reached 6 but not 18, and the number 18 years of age or over. The data would be much more valuable if the number of school census children 6, 7, 8, etc., years of age were given and the number of each age enrolled. At least a division should be made to show the number of children of elementary, junior high, and senior high school age, and the number of each of these groups enrolled in school.



In addition to the data on enrollment and promotion by grades which show the number enrolled, withdrawn, retained, and promoted, there should be data on the causes of withdrawal and non-promotion. Since high-school pupils are promoted by subject, the data showing number and per cent promoted by subjects would be valuable, as the per cent promoted in first, second, third, and fourth year English, first and second year mathematics, etc.

Data showing the distribution of attendance by days and the number entering school late would help give a clearer idea of attendance than the per cent of enrollment in average daily attendance. Data on age-grade and on progress through school should be collected from each of the districts every few years and an analysis made of these data for supervisory purposes. If, for instance, it is discovered that the pupils in some of the schools are making slow progress, the cause should be ascertained and a remedy recommended.

The number of children of school age is ascertained in each school district by a school census taken annually the latter part of the month of October. The chief use made of this census is for the purpose of distributing the State school funds to the school districts. The school census should also be used to assist in the enforcement of the compulsory attendance law. The school enrollment in the public, private, and parochial schools should be checked against the school census to discover what children have not entered school; but since the school census in Utah is not taken until the latter part of October, or more than a month after the opening of school, it is of no value for the first two months of school for checking enrollment. The question arises as to whether it would not be better to take the school census just before the opening of school in September, so that a check may be made the first week of school.

The school census should, however, be continuous; that is, there should be an uninterrupted and constant record of every child of school age. When a child moves into a school district his name should be added to the census roll, and when he moves out of the district his name should be removed from the census list.

It would also be desirable to know how many children there are in each district from 1 to 5 years of age. If such data were available, each school district could predict with more certainty its future needs. If the organization of kindergartens should become a part of the State program, children of kindergarten age at least should be included in the school census.

The State department of public instruction, through its research bureau, as recommended in another chapter, should prepare a system of records and reports to be used in all the schools of the State, thus making all records uniform. That the State should prescribe such



forms is evident, since education is a State function and since exact and uniform records are necessary in the administration and supervision of the schools.

It is not possible in this report to describe in detail the kinds of records that should be kept of the school children, but every district should install a system of record cards as may be recommended by the State department. Among these cards should be a school census card containing information showing place and date of birth, nationality, occupation of parent, etc.; a cumulative, individual record card containing data on grade progress, achievements on basis of tests and classroom work, attendance, punctuality, etc.; a physical and health record card containing data regarding the physical and health condition of the pupil at the date of each physical and health examination. There should also be a transfer card to go with each pupil when he changes from one school to another within the district and when he moves to another district.

Since space permits of only these general suggestions regarding the improvement of the child accounting system, reference is made to the following publications which describe in detail good methods of child accounting:

A State system of uniform child accounting, prepared by a committee of the State Teachers Association of Michigan: *Child Accounting*, by Arthur B. Moehlman, published by the Friesema Bros. Press, Detroit, Mich.; *A study of Child Accounting Records*, by A. O. Heck, published by the Ohio State University, Columbus, Ohio.

#### SUMMARY

1. The average number of days that the schools of Utah are actually in session is only seven-tenths of a day greater than the average for the United States, but a much smaller per cent of the school term is wasted by poor attendance. In 1924 only six States had a larger percentage of pupils enrolled in daily average attendance.

2. In several districts the elementary school term is shorter than the high-school term, and some districts have a much shorter term than others. There should be a minimum school term of 9 months, or 180 days of actual teaching for all the elementary and secondary schools of the State.

3. Attendance in the one and two teacher schools is poorer than in the larger schools.

4. The per cent of children 5 to 20 years of age enrolled in school is greater than the average for the United States, and greater than the average for the Mountain States, and only slightly less than the average for the Pacific States.

5. The per cent of children enrolled in high school is greater than the average for the United States, and greater than the average

for the Mountain States, and only slightly less than the average for the Pacific States.

6. A larger per cent of girls than of boys are enrolled in the high-school grades.

7. The per cent of over-age pupils is less than the average for the 830 cities of the country, but the per cent of over-age pupils in the high-school grades is greater in Utah, showing that there is less elimination of over-age pupils.

8. A larger per cent of boys than of girls are over age, and a smaller per cent under age and of normal age.

9. A much larger per cent of boys than of girls are making slow progress through school, and a smaller per cent are making rapid and normal progress.

10. Once a pupil has enrolled in school his name should not be dropped from the school register until it is known that he has enrolled in another school in the district, has removed from the district, or has legally left school.

11. Each school district in the State should keep a continuing school census.

12. The data regarding school attendance, promotions, etc., collected by the State department of public instruction are valuable, but more data should be collected, analyzed, and published in the biennial report or in special reports.

13. A uniform system of records and reports giving detailed information regarding the children of the State should be adopted.



## Chapter IV

### ELEMENTARY EDUCATION

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*Introductory statement.*—The first section of this chapter defines the scope of elementary education in Utah and states certain principles which underlie the subsequent discussion.

The second section centers attention upon the course of study in documentary form and in practice.

The third section treats time allotments and discusses the organization of half-day sessions for the first two grades.

The fourth section discusses the health service rendered by the elementary school system of Utah.

The fifth section gives the results of the testing program, presenting for consideration data relating to the efficiency of instruction.

#### SCOPE AND PRACTICE OF ELEMENTARY EDUCATION IN UTAH

Throughout the State of Utah, Salt Lake City district excepted, the elementary schools include grades 1 to 6 in systems organized on the junior high school basis or grades 1 to 8 in those organized on the 8-4 plan. Regardless of the fact that the public-school system in Utah as defined in the State constitution and statutes includes kindergartens, Salt Lake City alone maintains them. In 11 of the 35 districts outside of the 5 cities, general supervision of the primary grades is assigned to a primary supervisor. Excluding the 5 cities, the general supervision of the upper grades with two exceptions is performed by the district superintendents. The State course of study covers the kindergarten and the first six grades under the title "Elementary school," thus including the kindergarten in the elementary school group. The practice in many cities throughout the country of defining their elementary-school systems might well be adopted by State regulations. This definition is frequently given as K-6-3-3; as 7-3-3; and as "The public schools of this district shall be classified as kindergarten, elementary, secondary, and special."

The principles kept in mind throughout the discussion of classroom work in the first six grades of the schools of Utah may be briefly stated as follows:

1. The nature of every normal individual, adult or child, is pre-eminently active. The impulses to discover, to examine, and to construct are the forces which urge learning. We learn by responding.

2. Interest is an essential factor in effecting thoroughgoing responses to stimulating activities. "Responses" may include either actual participation in the challenging activity or a sizing up of the situation and a refusal to participate.

The manner in which the school offers the opportunities for these responses stimulates and guides their growth, determines the kind and amount of the pupil's learning. Plans and programs should be definitely made but flexibly administered. They should include experiences tending to the growth of social behavior as well as to the increase of appreciations and skills in reading, music, mathematics, fine and industrial arts, and spelling, and other subjects of the curriculum.

The interrelation of elementary-school activities gives opportunities for the pupil to express his ideas both through the so-called fundamental subjects and through the fine and industrial arts. More than one medium of expression clarifies and broadens ideas and increases appreciations.

3. Education should be a continuous process, beginning in the home. All the subjects of the school curriculum are found in the kindergarten and lower grades, but in less formally organized form.

The general objectives of education are the same for all units of the educational process. The demonstration of these objectives in classroom practice should provide uninterrupted and continuous progress for the pupils' growth in knowledge, in ways of behaving acceptably, and in skillful manipulation of such tools of learning as reading, writing, mathematics, drawing, and spelling.

4. The course of study should be in a state of continual reorganization. This reorganization should be based upon educational studies, observations, and classroom experimentation.

The supervisor and the superintendent should work with the teacher and the curriculum expert. The teacher's work becomes more effective as she studies and tests the values of such phases of her work as the construction of time schedules, the formation of lesson plans, the administration of tests, examinations, and checks of progress, the arrangement of classroom equipment, the grouping of children within the classroom, the giving of assignments, the organization of playground activities, and the development of techniques of drawing, modeling, and construction work both for their own value and to help increase skills in reading, arithmetic, and other subjects of the curriculum.



## THE STATE COURSE OF STUDY IN DOCUMENTARY FORM AND IN PRACTICE

*Introductory statement.*—The content of this section is classified under three headings: The State course of study; the mimeographed and printed materials used to supplement the State course of study; the elementary education offered the children of Utah in reading, arithmetic, language, geography, and industrial arts.

As a preliminary to the writing of this section, all available documentary material relating to the State course of study and the materials used to supplement it were carefully examined; reports of class work observed in the many classrooms visited by members of the survey committee in the districts included in the survey were assembled and studied; reports of interviews with principals and teachers were given careful consideration.

*The State course considered as a whole.*—The 1923 Utah State course of study for elementary schools is a distinct improvement over any preceding course issued by the State. The compilers were evidently familiar with classroom practices and problems. The point of view expressed in the introduction is a commendable one: "The course is not to be followed slavishly, but is to be by no means ignored. It is to be studied and mastered by every teacher in the service." Certainly if a State is to issue a State course of study, it is deserving of careful study by the teachers it is designed to serve.

*Commendable features.*—A few typical commendable features of the present course are:

(1) Directions to teachers regarding what subject matter to use in connection with each elementary subject, and the time in a child's progress in the grades most appropriate for teaching different units of subject matter, are in agreement with the opinions of subject matter experts and with the best current practice.

(2) With the exception of industrial arts, every subject commonly taught in elementary schools is given careful consideration. Apparently as much thought has been given to formulating courses in "special" subjects, such as hygiene and health, as to the courses in reading, arithmetic, and other traditional subjects.

(3) General and specific objectives are stated for each subject as a whole and for each grade—a step in advance in course of study writing. Many courses of study still fail to state objectives.

(4) The course offers some assistance to teachers in one-room rural schools in adapting the work to the group organization of such classes.

(5) A rather unusual feature—a result, doubtless, of the rapidly growing interest in moral education—is the inclusion of the children's code of morals. The introduction states in this connection



that one of the functions of the school is "to produce the changed individual—one filled with the determination to make life what it ought to be."

(6) The mechanical make-up of the course in type, size of page, arrangement of topics, and inclusion of a table of contents is good.

*Defects.*—The chief defects considered in this report may be classified under three headings: Poor organization; lack of conformity with modern theories of learning and education; the omission of certain types of information, directions, and reference which teachers need.

(1) *Organization.*—The course lacks unity in two respects: The brief independent sentences containing suggestions on subject matter and method are often unrelated and need elucidation. Some of the short, loosely organized paragraphs generally used lack a central thought upon which the paragraph as a whole is built.

The course does not reach a high standard in mechanical make-up in two particulars: It fails to show proper placing of headings and contains no index. New chapters, in several instances, begin on the center of a page instead of at the top, where a reader naturally looks for a chapter heading; the omission of an index deprives teachers and other consultants of a recognized means by the use of which they are helped to correlate the content of different subjects and to find quickly the information needed.

(2) *Lack of conformity with modern theories of learning and education.*—Disregard of modern theories of learning is seen in the predominance of subject matter over activities in the content of instruction proposed, in the segregation of the kindergarten section of the course of study, and in the statements of objectives.

There is general agreement that curriculum content should be stated largely in terms of pupil experiences and activities, if the education offered children is to equip them for daily living. In conformity with this, a course of study should register the progress made in regard to the dependence of learning upon activities.

The kindergarten curriculum is an isolated portion of the State course of study preceding the section devoted to the elementary grades. Though Utah as a State does not now offer kindergarten education, except in one district, any preparation which is made for it should be in keeping with modern principles of education. As the same principles apply to teaching in both kindergarten and other grades of the elementary school, an elementary course of study should clearly show that this is so and that elementary education from kindergarten to its completion is a unit.

The objectives given are not based in all cases upon modern principles of teaching. Three conflicting theories of learning are respon-



sible for the terms in which objectives are stated. Some objectives are stated in terms of knowledge of subject matter as an end in itself; others are expressed in terms of the practical applications of the knowledge acquired; others are stated in terms of activities, ideals, attitudes, and skills to be acquired. Modern educational theory approves of the latter.

Overlapping occurs in the statements of objectives. There is confusion as to the difference between directions, suggestions, standards, and objectives. Both overlapping and confusion are apparently due to the large number of objectives stated. The geography section illustrates this. Eight general and 13 specific objectives are given for the subject as a whole; 11 general "geography concepts and abilities" and 10 specific concepts and abilities for the fourth grade; 8 general and 14 specific concepts and abilities for the fifth grade; 7 general and 10 specific for the sixth grade. This lengthy list occasionally enumerates objectives as applicable to one grade only which apply to all grades; the specific objectives in many cases can scarcely be distinguished from general objectives.

Even when the objectives expressed are fully in accord with modern educational principles, they are not always held in mind in the selection and organization of subject matter. The topics presented for teaching in such cases apparently represent an arbitrary selection, arbitrarily imposed, rather than the fulfillment of the objectives proposed, and so the course of study fails to enlist whole-hearted cooperation of teachers in carrying out the suggestions offered.

(3) *Omissions*.—Some serious omissions were noticed: (a) The course does not assist teachers in the grouping of pupils, in the use of flexible time schedules, or in the informal arrangement of equipment. (b) No help is given teachers in the use of such factors in independent or directed study as the lesson assignment, instruction and practice in desirable study procedures, and instruction in the use of reference materials. (c) No information is given them concerning the reasons for and technique of adapting instruction to individual differences; nor suggestions by means of which they can aid accelerated or retarded pupils to advance more nearly to their maximum capacity. (d) The course contains no stenographic reports of classes observed, no type lessons, and no lists of questions to guide teachers in organizing and conducting classroom work, or in using questions which stimulate children to select facts pertinent to the problems they are trying to solve. (e) There are few references to literature suitable for children's use, or to magazines or books for teachers treating theory, method, or subject matter. (f) There are no lists of stories, poems, or pictures



from which teachers may select those to be taught. (g) Teachers are not helped to know (1) how greatly the psychological arrangement of subject matter which they should use differs from the logical outline of subject matter which predominates in the course; (2) how to introduce materials through situations familiar to children; (3) how to correlate information taught in one subject with that taught in another subject.

*Revision of State course needed.*—The foregoing and other inconsistencies which reveal an attempt to follow both present day and obsolete psychology lead to the conclusion that the State course of study needs revision. This revision should take cognizance of the recent abundant professional literature on the subject of the elementary curriculum, including (1) reports of scientific studies and experiments on the curriculum, and (2) those State and city courses of study which reach a high standard because of expert service and adequate care in their compilation.

This revised course should be based to a greater extent upon the principles enumerated in the first section of this chapter; it should not lose sight of the fact that children are by nature active; that their responses depend upon interest; that the school should use experiences tending to the growth of social behavior as well as to increase of skill in the conventional tools of learning; that more than one medium of expression is necessitated; and that the general objectives of education are the same for all units of the educational process.

The reorganized State department of education recommended in this report, when effected, should enable the State to have the advice of experts in educational theory, acquainted with progress in elementary curriculum building. Only through such educational leadership, directing the cooperative efforts of teachers and administrative officers can any State hope to keep abreast of the times in the formulation and use of a modern State course of study.

#### SUPPLEMENTS TO THE STATE COURSE OF STUDY

This section of the survey report is based upon an examination of six State primary bulletins and of material sent by district superintendents in response to a request sent to the 35 Utah district superintendents "for sample copies of all circular letters or printed forms sent to teachers by you or your supervisor or supervisors." Sixteen of the 35 district superintendents sent material distributed to teachers.

The Utah county district superintendents (especially those without local supervisors) entertain a high opinion of the primary education bulletins issued by the State department of public instruc-



tion. This is illustrated by the following from a superintendent's circular to principals:

Will you kindly see that the inclosed copies of outlines for primary grades sent from the State office each month are placed in the hands of your primary teachers? There are a number of teachers who are experiencing some difficulty in adjusting to the work of the primary grades. They seem at a loss as to what materials and methods to use and where to get help. The outlines provided should aid them.

All the material (with one exception) inclosed by the district superintendents and supervisors is mimeographed. It represents painstaking efforts. The amount distributed varies greatly. Some districts send teachers only a few pages a year; others send a great quantity of material. In mechanical make-up and content the material varies from pages hard to read, due to the combined influence of a crowded appearance, imperfect mimeographing, and a loosely organized content bearing evidence of too great haste in its compilation, to pages containing many pertinent suggestions and recommendations and well adapted to attract readers through perfect mimeographing, clear language, and valuable content.

*Various types of assistance given.*—The material which supplements the State course of study is discussed under the following heads: Teachers' meetings, substitutes for and additions to textbook content, aids in the use of tests, use of professional literature, assistance along seat work lines, and generalizations made on the basis of class work observed.

*Teachers' meetings.*—Although from other sources it is known that many teachers' meetings are held, the district materials include only a few programs of such meetings. These programs furnish meager information, frequently giving only the names of the speakers. Not even the subjects are included in a number of cases. When the topics given are of a general character, permitting participants to draw upon a previously acquired fund of general information for discussion, the meetings are of little value to teachers. Occasionally the topics listed, as "Developing right attitudes toward primary reading" and "Motivating primary reading from life experience," are sufficiently limited in scope to indicate an effort to realize an important function of teachers' meetings, namely, to influence directly the teaching of those in attendance.

The following seems to prove that we can not assume that well-chosen topics without follow-up work, designed to reenforce the program, will lead to the improvement in teaching technique so necessary if a higher standard of elementary education is to result. One district superintendent distributing much material gave a talk entitled, "Educational principles to be emphasized this year," at the first institute in the fall. Later circular letters contain no reference



to this subject, well fitted as it is to focus the attention and efforts of teachers throughout the year.

Demonstration teaching is featured occasionally, but the materials contain no details of such demonstrations or any reports of class exercises.

Programs of teachers' meetings might well indicate, as is the practice in some States, that definite preparation along some particular line is expected of every teacher in attendance. They should assign for discussion, often in connection with demonstration teaching, topics which are so clearly defined and so limited in scope that participants are obliged to analyze their own teaching procedures, to consult recent professional literature on the subject, to describe their efforts to solve a problem or attain a certain aim, and by so doing present the results of carefully worked out plans for the critical consideration and reaction of their fellow teachers. Programs of this type make important additions to the course of study and materially assist teachers in working for definite results.

*Substitutes for and additions to textbook content.*—Modern textbooks such as are generally found in Utah are an important source of data. It is imperative, however, that teachers bring live material into the classroom to supplement the texts. Subject matter presenting new points of view, summaries of recent industrial or social developments, or of research studies and experiments are among the preferred types of material which may be so used. The primary education bulletins issued by the State department contain two illustrations of subject matter presenting new points of view in a third-grade project, "Our Dutch Party," and a fourth-grade project, "Playing Santa Claus."

Excellent suggestions and questions were found in the circulars used in a few districts in Utah. Citations follow: "In addition to the inventions mentioned in the text, pupils who are ahead of the class should look up and make reports on some of the modern inventions." "Of all the territory Russia lost as a result of the war, why is the loss of Finland the most serious?" "Why is recognition by other countries a necessary step in the progress of any country securing its independence?"

The prevailing types of material do not, however, reach so high a standard as the above, as the following indicate:

1. Some superintendents sent pages of informational material of the kind generally found in pupils' texts and reference books or in State courses of study with no explanatory instructions assisting teachers to use the material advantageously and with no statement of the reasons for sending it. Material which is a close duplication of the content of textbooks in use or of the Utah State course of



study indicates lack of a definite purpose in the mind of the school official distributing it.

2. A few superintendents inclosed lists of spelling words to be used instead of the regular spelling texts in each of the several grades, with no information of the use to be made of the words or their source. Only scientific investigations requiring much training on the part of collaborators with adequate clerical assistance justify the substitution of new lists of spelling words for lists available in spelling texts which have been derived by scientific procedure and which explicitly state conditions under which words were selected.

3. Others inclosed directions which mislead teachers. An erroneous point of view in regard to the selection of spelling words is evident from the following citation:

You (the teacher) will find a number of words in the spelling book not in common usage. Do not teach. Use your best judgment in deciding what words to eliminate from the list. Only those words in the adopted spelling books which the pupil will use in his written discourse should be taught.

Instead of attempting to compile lengthy lists of spelling words or expecting teachers to decide on the spelling words to be taught, superintendents should take advantage of the progress made in adapting spelling material to social use through the work of investigators during the past 15 years. They should expect children to learn to spell the words whose spelling, according to investigation, is necessitated by the demands of written language.

4. Among the materials sent to teachers in Utah are copies of stories, prose quotations varying in length from one or two lines to half a page of a book of ordinary size, pages of memory gems and entire poems, for use evidently in reading and language. Much of the poetry is suitable for adults only; a few selections are especially applicable to teachers. Some poems which children generally like are included. Comparatively few poems of the highest excellence are found among those distributed. A better plan is for teachers to select the poems taught from the reading and language texts in use and from standard collections of poetry in the school library. Teachers need a list to guide them in selecting from these various sources. It is neither necessary nor economical to furnish them with copies of printed or mimeographed poems and rhymes made especially for their use. A list of titles of poems, stories, and pictures assigned to each grade is useful. It prevents the teaching of the same material in different grades and makes it possible for teachers to use the content taught in preceding grades for purposes of comparison, interpretation, and illustration.

Many State courses of study contain such lists as guides to teachers. In lieu of a State list, or supplementing it, a committee of



teachers might well be requested to assist the supervisor in compiling suggestive lists of stories, poems, and pictures for study with the names of source books, whether separate collections, reading or language texts. Two further advantages of such a list (State or district) are that teacher-preparing institutions through its use can prepare teachers to teach the stories, poems, and pictures included; and teachers in service not already familiar with them can study them and thus prepare to teach them.

5. An analysis of the contents of certain portions of the textbooks in use was distributed by some superintendents. This type of assistance should be limited to suggestions that teachers use the detailed tables of contents found in the texts themselves, and to designations of the chapter or page which should mark the beginning and ending of work for each month or term.

Reorganization of subject matter found in the course of study or texts may be helpful to and needed by teachers. When such a reorganization is recommended by any superintendent, the new organization should be clearly stated and its use explained. The supplementary materials furnish few instances of such reorganization.

*Summary.*—The use of supplementary materials to enrich the course of study, texts, and experiences of children is to be commended. However, such materials should furnish a content more helpful to teachers than are the five types of materials just described.

*Assistance in the use of tests.*—The materials include copies of informal and standardized tests. The informal test questions relate to each of several of the elementary school subjects and provide for responses which train in alertness and adaptability, such as selection, matching, completion, same-different, and true-false tests. As this kind of testing has only recently established its place in educational practice, circular letters containing such tests give teachers immediate help and stimulate them to adapt them or to formulate similar tests of their own.

The help given in the use of standardized tests in the circulars examined includes assistance in administering and checking chiefly. Scant attention is paid to helping teachers in five essentials of any testing program: (1) To discover the specific defects of the individual members of the class; (2) to plan systematically remedial measures designed to strengthen weaknesses after defects have been ascertained; (3) to adapt instruction to individual needs; (4) to plan tests and drills to prevent errors generally made; (5) to interpret the results of the tests and use these results as a basis for better teaching.

The district circular letters direct teachers whose pupils fail in informal, standardized tests, in examinations of the conventional



type, or in class work generally, to "stop halting reading instantly and have the child study," or to conduct a thorough review of the whole subject. This advice seems mistaken. Recent studies show little improvement in results obtained after reviews of this type. Instead of such general advice in regard to reviews, teachers need to be shown: (1) How to induce pupils to participate more actively in mastering subject matter and correcting defects: (2) how to interest pupils by means of graphs and other records to compete with and surpass their former achievements.

*Use of professional literature.*—The circular letters contain a number of sentences and paragraphs quoted from recent professional literature. Rarely do anticipatory or subsequent paragraphs contain original comments and explanations by the supervisor suggesting to the teacher how she should apply the content of the excerpts to her own problems. Extracts from professional books unaccompanied by explanatory notes or definite suggestions do little to modify curriculum content or teaching method.

*Seat work.*—The seat work assistance furnished consists chiefly of (1) stenciled patterns generally considered of small educational value; (2) materials designed to help teachers test pupils' comprehension in reading. Much excellent material of this latter kind was received from two or three districts.

*Generalizations on the basis of class work observed by superintendents and supervisors.*—Considerable space is devoted to supplementing the State course of study through generalizations offered as a result of class observations. These generalizations often lack in clearness and accuracy of both thought and statement. Citations follow: (1) "Elementary arithmetic more often than any other subject of the curriculum except language involves the inculcation of mental habits." (2) "In addition, even more than in subtraction, there will be a tendency to dawdle over the work." (3) "During the long summer vacation children forget school work, and this is especially true in regard to the second and third grades." (4) "Some indications of a well-directed, well-organized, well-taught school: The child registers a definite achievement every class period and day, working toward a final definite goal. There are few class recitations, but much individual learning."

Occasionally the advice given violates educational principles. In the following quotation the writer shows lack of acquaintance with principles of program making: "Health, music, language, civics, history, penmanship, physical education, nature, art, and ethics can be taught by having all pupils in the room form the class. This is almost necessary in a one or two room school to get the best results."



Generalized advice based on class work observed is valuable, provided it is clear and accurate in thought and statement and based on correct educational principles. It should be confirmed by the testimony of careful investigations wherever obtainable.

#### THE ELEMENTARY EDUCATION OFFERED THE CHILDREN OF UTAH

*General statement.*—Each of the five elementary school subjects discussed in this third portion of section 2 is considered from the following points of view:

The treatment of the subject in the State course of study; its treatment in the supplementary materials; the actual teaching of the subject as observed by members of the survey committee. A summary and conclusions follow the discussion of each subject.

*Reading in the printed course of study.*—Many of the newer ideas in the teaching of reading, the results of the more recent contributions made by scientific investigation, are found in the Utah State course of study. The course recommends: (1) Increasing the reading opportunities offered children; (2) stressing the teaching of silent reading; (3) subordinating reading mechanics to thought interpretation; and (4) keeping reading material relatively easy, so that pupils are relieved from spending much time determining meanings and pronunciations.

At times the course loses sight of the changes in methods of instruction justified by recent investigations in that it fails to give or only mentions briefly information which teachers need along the following lines: (1) The newer kinds of materials helpful in increasing rate, checking comprehension, and remedying defects discovered by tests; (2) the technique of assisting pupils to apply the ability developed through the use of silent reading textbooks to the study of such subjects as history, geography, arithmetic, and hygiene; (3) the use of textbooks in these informational subjects from the fourth grade on to supplement the use of reading texts for silent reading practice; (4) the value of and procedure in group reading; (5) the meaning of an adequate amount of reading material; (6) the measurement of the effectiveness of reading instruction by standardized tests; (7) the means by which teachers can acquaint themselves with progress in teaching reading which has resulted from scientific study of reading problems.

In a few instances, as the following statements exemplify, the standards set are too difficult of attainment: (1) "Toward the end of the third grade, children should grasp the gist of a paragraph at a glance." (2) "By the end of the sixth grade, children should know many of the world's best selections of lyric and pastoral poetry." (3) Certain sixth grade suggestions for "comprehension



or interpretation" recommend that pupils find the author's purposes and list as one possible purpose: "To develop some philosophical truth."

Greater care in unifying the course, and a better understanding of the implications involved in the reading objectives listed in it, would have eliminated the following from the course: (1) The premature introduction of phonetic analysis; (2) the inclusion in the desirable aims of first-grade reading of "ability to tell a story in connection with nature observation, health, and literature talks"; (3) this direction for the beginning work in the primer, "It is best then to use two basal books at the same time, one in the forenoon and the other in the afternoon, as the change from easy to difficult reading is too great in any one book to follow it page by page." That such a direction would be sure to defeat its purpose may be shown by an examination of the very gradual and careful introduction of new words in the first 15 or 20 pages of many of the recently issued primers and a comparison of this number with the far greater number of words pupils are required to learn if two primers are used at first.

The following instances of indefiniteness or lack of clearness in directions and comments are apparently due to haste in compilation, a characteristic too generally obtaining in the formulation of State courses of study: (1) "Silent reading means the effective increase of rate and comprehension." (2) "Much reading on a low gradient is better than many word drills." (3) "List pupils according to their ability to think, to work definitely toward the eradication of difficulties through the use of phonics, simple word study and drills for speech control." (4) The chief aim of the teacher in reading aloud to her pupils is "to call the minds of the children into strong action through the stimulation of the author." (5) "Choose selections that present real or possible situations; or situations that present some truth; situations that develop imagination and interest and at the same time provoke thought and mental grasp of realities."

A number of recent State courses of study assist teachers of reading to a greater extent than does the Utah State course (1) to work consciously to develop strong motives for and a permanent interest in reading; (2) to discover the extent of the variation in the mental ages of young children and its significance in the problem of teaching them to read; (3) to select and use certain types of reading material in such a way that pupils will get from them the knowledge of how to act in new situations; (4) to develop initial reading lessons based on experiences of children; (5) to provide children with extended practice in seeing words in groups, a necessary skill if economy in word recognition is to be reached. The test type of



training will build up desirable habits of word recognition and eliminate undue reliance upon phonetic analysis.

*Reading in the district materials.*—The district materials give teachers much detailed help in the teaching of reading. The following statement found in a circular letter is typical: "Let the fast readers go as fast as they can and add the slower ones to these groups as fast as you can. You should be changing the personnel of these groups continually."

Circular letters from another district tell of a campaign to get 1,000 books into the pupils' homes in the interval between the opening of schools in the fall and Christmas time. These letters kept the schools informed of progress made, stimulated them to make use of posters and speeches, and emphasized the value of these activities as training in English apart from promotion of their immediate end. Over 800 books chosen chiefly from a carefully compiled list were thus placed in homes and doubtless did much to foster the acquisition of the reading habit among the pupils of the district.

In contrast to this helpful type of supplementary materials, the advice given in the outlines distributed in some districts fails to conform to modern standards as the following quotations show:

A superintendent suggests that third-grade pupils should be given supplementary books to read at their seats, "even if the child does at first nothing more than pick out from the printed page the words he knows, he will be gaining in facility and power, and, above all, in interest."

"In testing comprehension in primary reading use reproduction. Try the telling of stories by relays; that is, let one child commence the story, let the next take up the narrative, and so on until it is completed. Give credit for minor details that are recalled, and emphasize the importance of every point in the story, however small it may seem. Have children avoid the exact words of the text."

In a few districts an attempt to carry out the suggestions given relating to the teaching of phonics would make too strenuous demands of pupils. Typical examples of the type of phonetic work which fails to agree with the point of view held by present-day educational leaders are the following:

In a second-grade phonics test sent to teachers in one district they are directed to "write the following words on the board, one at a time, and call on pupils individually to get words independently, applying their phonics." The list of 20 words given includes *lickety*, *blackened*, *enemies*, and *trespass*. In another district, among many other words included in a list for first-grade phonics, are these: *Blandly*, *translate*, *clinker*, *scripts*.



In a third-grade phonics test teachers are directed to have "each pupil apply the rule for pronouncing the following words: *c*, in *picture*; *g* in *generous*; *k* in *knee*; *ai* in *complaint*; final *e* in *laughable*."

"The work of the first year decides the child's attitude toward phonics. Pupils should readily learn the elementary sounds and combinations of sounds which are most used. If one equivalent of a sound is given, pupils should be able to write all the equivalents of the sound given and spell and write many words containing different symbols.

"The work of the first grade is largely memorizing certain sounds and sound combinations. The work of the second grade is acquiring facility in the use of this knowledge.

"In the fifth grade precede every oral reading lesson with a word or phonic drill."

*The actual teaching of reading.*—The keen interest in the teaching of reading observable in a number of schools was doubtless due in part to the adequate supplies of thoroughly up-to-date reading material generally found. There were strong points in the reading work seen by members of the survey staff in schools visited. (1) Primary-grade pupils on the whole read fluently. This was due to reading through a number of books rather than too much repetition of a limited amount of reading material. (2) Teachers showed considerable skill in the use of a variety of checks to determine pupils' comprehension of content read silently. (3) The sectioning of reading classes into small groups for reading practice was common in some districts. This procedure had greatly augmented the amount of reading done. (4) Excellent home-made and commercial seat-work material used by children did much to reinforce class instruction in some systems.

Occasionally these weaknesses were apparent: (1) Children were reading word by word as the teacher wrote or printed; (2) they were pronouncing words and phrases in concert; (3) teachers were using thoroughly formal procedure and children gave no indication of interest or understanding.

*Summary and conclusions.*—A revision of the present course of study in reading may well consider: (1) That changes in line with the results of research and scientific investigation be included; (2) that appropriate standards be set up; (3) that the objectives, aims, and guidance given be harmonized; (4) that guidance be given definitely and clearly.

*The State course of study in arithmetic.*—The State course in arithmetic gives teachers considerable help along three lines: (1) It enumerates general and specific objectives to be attained through



the teaching of this subject; (2) lists the topics to be taught during each term of the elementary school; and (3) recommends methods for the teaching of a number of arithmetical processes. The course for the first two grades is especially helpful in its discussion of the uses to be made of the school and home experiences of children and in its tabulation of suitable means for furnishing and extending number experiences.

Inconsistency is evident in the fact that the list of general and specific objectives given contains directions to teachers regarding procedure, such as "Emphasize oral work" and "Develop habits of accuracy," interspersed among real objectives.

The information given teachers in some instances lacks clearness, as may be seen from the following: "Make all problems genuine; that is, have a few of the quotients come out even." "Attention should be called to economical methods of thinking." "Fundamental combinations in fractions should be fixated in consciousness through drill." At the end of the sixth grade, "the different abilities with integers, fractions, and decimals should be fully organized."

Some general advice is given teachers regarding the use of standard tests, but more emphasis should be placed on their specific values. The course should help teachers to know how through and in connection with the use of tests, (1) to substitute knowledge of each individual's specific difficulties for the vague knowledge teachers generally have of the weaknesses of a class; (2) to make provision through differentiated assignments for those needing more drill and for those ready for new work; (3) to classify the errors made by children and thus be able to work for their prevention (investigators have found that arithmetic errors made by thousands of children belong to a very few types, and so can be prevented to a large extent); (4) to devise promotional schemes, giving due weight to results attained in reasoning tests in arithmetic as well as those designed to measure skill in fundamentals.

The course in the intermediate grades would be strengthened by the inclusion of suggestions for correlating the work in arithmetic with problems derived from geography and civics and from the daily lives of people and by offering teachers definite assistance in helping children to solve problems they can not solve unaided.

Several recent courses include treatment of the following, which might well appear in a revised Utah course of study: (1) The use of class and individual graphs to motivate the work in arithmetic and the value of pupils' learning to read and make simple graphs. (2) The value of substituting motivation in general for the excessive repetition teachers are likely to rely upon as the only factor in habit formation. (3) Provision for studying mathematical language by



the use of flash cards having sentences printed on them containing the vocabulary usually found in arithmetic problems (see Montana State courses) or by any similar procedures, so that the technical terms used will be understood. (4) The use of flash cards containing figures, and other necessary equipment aiding the economical and effective teaching of this subject. (5) The development of ability to work problems involving the combinations learned. (6) The frequent consultation of two or three texts in arithmetic, thus saving time in the composition of problems and examples.

*Arithmetic in the district materials.*—The district materials help teachers to apportion the distribution and amount of practice necessary in order to prevent both frequent pupil failures and undue expenditure of time spent in drills. They include many tests designed to be given to pupils, but are often unaccompanied by any explanation for the use of the teacher. They contain many directions to teachers which at times lack definiteness or accuracy or both. Citations follow: (1) "It isn't how much work the child covers, but how he does it, that counts." (2) "In both oral and written work the introduction of the time element will add interest and will help in the attainment of the end, namely to make automatic the knowledge of fundamental facts." (3) "Along with the abstract work of learning the multiplication facts must go simple problems to make the facts alive and full of usefulness to the children." (4) One of the "points the children will be held for in the fourth grade" is long division, "first of two, then of three digit dividends by two-digit divisors, then problems gradually increasing in difficulty." (5) "Assign seat work that will require pupils to concentrate. Guessing should not be permitted." (6) "In the third and fourth grades at the beginning of school, review arithmetic at least two weeks, as a child forgets many things during his vacation. No more written work should be assigned in any subject than the teacher can and will correct."

*Arithmetic in the class work observed.*—In some schools objective teaching through the use of "playing store" showed excellent use of a natural situation for developing both skill in arithmetic and ability in the use of English. The use of Courtis's practice tests and of clocks, by which pupils were learning to tell time, were among the types of up-to-date equipment observed. Considerable class time was spent in checking answers to examples and in the explanation of problems worked by pupils at their seats. The time lost in class in checking can be saved by having pupils check each example immediately after working it and rechecking by means of a key in the text or one provided by the teacher at the close of the study period or during the first few minutes of the recitation period. Constant



vigilance will be necessary to establish checking as a habit in the children, but it is a necessary habit for them to form.

To economize class time, the course of study should lead teachers to appreciate the purpose of having pupils explain problems which have been solved. Problems are explained to help pupils who fail to work them or because the teacher uses this means of checking the individual's grasp of the problem. If for the former purpose, only those problems upon which someone justly needs help should be explained. These will be a few if the assignment is adapted to the needs of the pupils. If the second value is desired, only those pupils whose independence in work can not be taken for granted should be asked to explain. If time is taken to teach children how to use textbooks with lessons given in interpreting problems similar in method to that used in other silent reading lessons (see Montana course of study), much of this kind of trouble will disappear.

*Summary and conclusions.*—A revised course of study in arithmetic is needed. It should help teachers to secure profitable use of the time devoted to arithmetic study by pupils at their seats and during the class period by applying to the teaching of arithmetic the conclusions reached by scientific studies. Definite procedures for helping teachers should be incorporated: (1) To instruct pupils in the construction of graphs and to develop in them appreciation of the value of graphs and facility in their use; (2) to give pupils an understanding of and to test them on their comprehension of the technical language of arithmetic; (3) to use the best types of practice and drill materials and methods; (4) to enrich the study of arithmetic by capitalizing the general and deep interest of children in facts of quantity through the adequate provision of opportunities for study, discussion, and solution of problems of intrinsic importance.

*Language in the State course of study.*—The State course of study in language guides teachers to stimulate in children an interest in acquiring skill in expression through imitation and through enrichment of their vocabularies. It explicitly states that teachers need to keep in mind the interrelationships existing between language teaching and the use of English in all classes. It advocates the use of excursions to extend experience, drill on specific words (given in the course) in order to secure good usage, and the writing of cooperative stories in which pupils furnish the sentences and the teacher after guiding their necessary alteration acts as the class secretary and writes them on the board.

As elsewhere in the State course of study, an objective listed in one grade only is, because of its general character, equally applicable to all. "To have children show efficiency in the use of Eng-



lish" is no more a second-grade objective than it is a sixth-grade objective. If stated, it should be an objective for the elementary course in English. *Directions* are called *objectives*, as shown in the following instance: "Continue to encourage the use of simple sentences; also good arrangement of thought." An objective given for teaching language in the elementary school, namely, "to teach children to hear and read intelligently," is really an objective for the teaching of reading, or for the elementary school as a whole.

A few of the suggestions and directions given are defective in one or more of the following ways: They are vague, misleading, or only partly true. Citations follow: (1) "Have the stories told in short sentences and have few sentences;" (2) "One error should be given remedial attention for a week or more through language games, then reviewed at least once a week throughout the year."

Among the omissions may be mentioned: Lists of stories, poems, and pictures; composition scales; and definite assistance in the pupils' use of the blackboard in language classes. This use should be emphasized and a workable scheme such as the following described: After pupils have spent a portion of a class period in writing at the blackboard, the writing should cease and the teacher and the pupils should critically read the sentences written by the different members of the class. Through the cooperation of all the excellencies and errors are discovered and noted and the latter corrected soon after their commission. Different State courses recommend this provision for commendation and correction following close upon composition. In the hands of an alert teacher it yields good results.

The Utah State course of study fails to help teachers to appreciate adequately that growth in language is most certain to result when children having ideas to express on real or imaginary interesting experiences are given opportunities to speak and write freely about them.

*Language in the district materials.*—The materials distributed by one superintendent suggest definite ways of developing and utilizing pupils' own experiences; outline plans for the writing by pupils of themes which they are to send to him; reproduce themes written by children in different schools with marks given which teachers are urged to use for purposes of comparison; list samples, for correction by the children, of incorrect sentences taken from themes written by the children of the superintendent's district and sent to him by the teachers.

This superintendent reenforces the suggestions made in the State course of study that oral language work be considered a necessary preliminary to written language work in elementary grades in the following statement: "It is imperative that children be not allowed



to attempt written work for which they have not had complete and adequate preparation."

He helps teachers to develop spontaneity thus: "Let the child express or play a part as he sees it. It is the differences, the originality, that make it interesting and that justify repeated playing of a story before the same audience."

A good illustration of motivation of language work is afforded by the use made of the language possibilities in the book campaign mentioned in the reading section of this report. Pupils prepared talks to give before organizations of teachers, parents, and citizens; prepared posters and announcements to be used in the campaign. The superintendent stressed the value of these activities as language training. Their values in language and civic instruction undoubtedly repaid all teachers, apart from the number of books purchased.

*Language class work observed.*—In some schools pupils spent an undue proportion of time reproducing stories told to them by the teacher or read by them at their seats without guidance on the teacher's part. In other schools pupils were strengthening and developing faulty habits of technique through the copying of their own written work containing many uncorrected errors. The first procedure is a result of unwarranted confidence in the belief that reproduction should occupy any considerable time in the language class period; both procedures illustrate poor teaching practices.

Many teachers fail to use the textbook (a modern one) and substitute for it a haphazard selection of material. If good results are to be attained, disuse of the language textbook necessitates: (1) Extensive preparation on the teacher's part; (2) a careful record of the work done; (3) ability on the part of the teacher to coordinate language teaching with the teaching of other subjects; (4) a tentative outline for the use of the teacher who has the pupils the next year. Experience proves that teachers on the whole fail to make the preparation, the record, and the outline necessitated. They make little attempt to coordinate the work.

In general, it is far wiser to require familiarity with the text on the part of both teacher and pupils. Up-to-date texts in language are fully as necessary as similar texts are in geography and history; they guide teachers and save the time and attention which must be devoted to recording, coordinating, and outlining the work if no text is used. In addition, a good text presents teachers with a perspective which stimulates them to prepare for their language teaching with a more intelligent grasp of the problem; and to put forth efforts to develop originality in pupils and to lift this original work above the commonplace.

No attention is given in the State course to the study of grammar in the first six grades. The sound sense shown in this omission is



nullified by teachers and superintendents in practice. The wisdom of the introduction of grammar instruction below the seventh grade is to be seriously questioned.

Only such portions of grammar as are needed to improve children's written and spoken English are essential in the seventh and eighth grades. Teachers need help through a State course of study or from superintendents and supervisors to teach these portions as they are needed in connection with language activities.

Intermediate grade teachers should be cautioned not to substitute grammar for the language work adapted to pupils' needs in the intermediate grades. Careful planning and thought are required to develop in intermediate grade pupils the language habits, skills, attitudes, ideals, and appreciations of which present-day education approves. No time should be taken for the teaching of grammar.

*Summary and conclusions.*—In revising the language section in the State course of study, care should be taken to limit the use of the word "objective" to its usual connotation; to make suggestions and directions explicit and accurate; to include such teaching helps as lists of stories, poems, pictures, and the like.

The revised course should do more to help teachers to stimulate and guide children to better oral and written expression. This will necessitate the inclusion of directions by the study and application of which teachers may learn how:

(1) To guide pupils to use their own experiences to advantage through the choice of appropriate, carefully selected, limited phases of topics on which to speak and write;

(2) To create an atmosphere of freedom and happiness in the classroom tending to develop spontaneity and originality in children's utterances;

(3) To plan and administer frequent brief written exercises in which an opportunity is provided each pupil (a) to write; (b) to have what he has written read and criticized by himself, his teacher, and his classmates; (c) to profit by his own re-reading and the reading and comments of his teacher and classmates in making any necessary corrections;

(4) To extend responsibility for improvement in the use of language to other school subjects, thus making them contribute to the betterment of sentence structure, choice of words, and correct usage.

*Geography.*—The Utah geography courses. The three classes of materials which teachers in Utah have an opportunity to consult—the printed State course of study, the mimeographed outlines sent from the State department, and the district superintendents' materials—are considered in this report under the title, "The Utah geography courses."



Taken as a whole, the emphasis in the Utah geography courses is on factual knowledge. Teachers are not shown how to help pupils assemble, evaluate, and organize the facts learned. Two typical recommendations advocating the fixation of facts through relentless drills instead of through use may be cited: "If a test is given and pupils fail, the instruction should go on until practically all the pupils (at least 95 per cent) have reached the desired objective." "For each unit of subject matter pre-test, test, reteach (if necessary) and test again up to a mastery level of all pupils capable of receiving it."

In spite of the fact that teachers receive little guidance in the coordination of facts, pupils are expected to become proficient along this line. The following sixth-grade standard is too difficult of attainment at that grade level, even if much previous training had been given: "Sixth-grade pupils should be able to take notes and evaluate facts and principles, organizing the information acquired from various sources."

Statements advocating the newer teaching procedures are not wanting. Teachers are told that it is the children's own self activity that educates them. Occasionally a specific activity is recommended. Illustrative problems and questions are included. However, instances of this type of assistance are the exception. The Utah geography courses do not give teachers the kind of detailed assistance concerning problems, projects, and activities which teachers need and find difficult to obtain elsewhere.

The courses might well offer suggestions to facilitate teachers' acquaintance with, and intelligent use of, the advanced geography text in general use in the State. They do not do this. That this text is well fitted to reenforce and supplement a modern geography course of study is shown by the following summary of its preface.

The topics included are confined to those with the most human relationships. The authors have spared no effort to consult a great variety of sources, so that teachers may easily discover the changes in products and occupations resulting from the new world conditions. They have accepted the modern demand that the learner's present needs rather than encyclopedic facts should be the starting point in instruction. The authors select problems making a strong appeal to children and present facts necessary for their solution. They raise live questions for class discussion and formulate thought questions accompanied by references and suggestions on how to study. This organization of the text makes it an important agency for improving methods of study.

*Suggestions from recent State and city courses of study.*—Several recent geography courses succeed in their appeal and usefulness to



elementary school teachers and children. They meet teachers and children on the basis of their fundamental interests and use their experiences as a starting point to learn more about such commonly used products as rubber, linen, fur, buttons, spices, and automobiles. They suggest interesting approaches to geography teaching through visiting such industries as a bakery, where both the raw materials and the finished products may start future study; through constructing maps and illustrating them with original drawings or pictures cut from magazines; and through the compilation of scrap-books under definite classifications, such as geographical locations, raw and finished products, races of people, and climatic conditions.

These newer courses of study also emphasize worth-while attitudes to be developed through geography teaching. Friendliness toward other nationalities grows through studying the habits, customs, work, and play of children in other lands. National pride in and respect for such American resources as forests, arid lands, birds, animals, and national parks are strengthened through conservation studies. An appreciation of the interdependence among sections of the country which promotes their mutual growth and prosperity results from studies of industries and transportation.

Teachers are given specific help in the use of methods of teaching through these courses of study. They present type lessons and outlines of units of work which extend over several weeks' work, they suggest files for geography clippings and pictures, describe the values and the methods of conducting excursions to industrial plants, civic centers, and other educative situations, and illustrate how children may be helped to check the accuracy and amount of their acquired information. They advocate assembling exhibits and preparing auditorium programs to which other schools and grades may be invited. To a large extent they are formulated in terms of projects. They show how the development of teamwork among pupils is necessary to success in project teaching, describe different types of projects adapted for motivating and reviewing the work of the school term, and emphasize the advantages of this method over the traditional types of teaching.

*Geography in the class work observed.*—Pupils in general failed to take part freely in discussion, to make comments on what was said by other pupils, to add information supplementing what had been given, to ask questions, to utilize to good advantage their experiences or bring them into the classroom. They took everything for granted. Survey observers noted few instances in which pupils questioned a statement found in the text, or one made by the teacher or another pupil.

*Summary and conclusions*—A revision of the Utah geography courses should give teachers more help through: (1) An improved



organization. The present courses in centering attention chiefly upon a logically arranged list of topics tend to lead in practice to a stereotyped method of procedure in geography which is exactly what modern teaching of the subject aims to avoid. (2) The enumeration and use of approved objectives. The objectives stated in the introduction and elaborated in the body of the course should be those generally accepted by experts in the teaching of geography.

*Industrial arts in State course of study.*—The present State course of study for elementary schools of Utah, issued in 1923, does not recognize industrial arts as a separate unit of instruction. It includes phases of it under geography, history, civics, art and construction, and seat work. Under this last heading are listed for the first three grades many activities which bear upon the daily necessities of children and have educational value.

Under the heading of art and construction, the State course outlines materials and problems, and gives certain standards of attainment. Teachers are not, however, given systematic guidance in accord with modern standards for teaching the use of materials helpful in making the useful beautiful. Teachers need such guidance in order to plan for pupils: (1) A systematic development of a graphic vocabulary; (2) a continuous growth in appreciations and specific skills in handling, with some regard to artistic effects, such materials as clay, wood, paper, cloth, and cardboard.

*Industrial arts in the elementary schools of Utah.*—Evidences of the beginnings of industrial arts, with little equipment for it, were found in a few of the elementary schools. In one of the two-teacher schools there was an extra room adapted for use of industrial arts materials. This represented an ideal situation, which, however, was not fully utilized. On the whole, no well-organized program based upon the daily activities and life situations of the children was observed in the State.

*Needed—An industrial arts program.*—A State course of study should include a section devoted to the industrial arts.

Art plays an important part in the common necessities of life. A definite and growing need for instruction in art in the schools is apparent. Aside from its cultural and recreational value, it is used in the selection and wearing of clothes, in the furnishing of homes, and in the practical work of the trades and professions. The elementary school, through its courses in drawing, construction, and appreciation, should teach pupils to appreciate and demand the artistic as well as the practical in life. The inspiration for industrial handwork is furnished by the other school subjects with which it correlates well. The practical scope of the field of industrial arts is indicated by the list of projects usually found in such courses.



They are classified as food, clothing, shelter, records, utensils, tools and machines, light, heat and power, needed for the comforts and enriched spiritual life of man. These groups and their treatment are briefly described by Winslow in "Organization and Teaching of Art," as follows:

The topic of *food* includes the transformation of cereals, fruits, vegetables, milk, meats, eggs, and fish; *clothing*, the transformation of wool, cotton, linen, silk, and leather; *shelter*, the transformation of wood, stone, metals, clay, and cement to meet man's needs for homes and public buildings (this topic relates to architecture); *records*, the transformation of wood, leather, metal, textile materials, and pigments to meet man's needs for books, printed products, painting and sculpture; *utensils*, the transformation of metals and of nonmetallic earth material, used for the most part for domestic purposes; *tools and machines*, the production of implements used in manual labor, and the more complicated mechanical devices called machines; *light, heat, and power*, the transformation of natural materials and natural forces for the production of these commodities.

The objectives of an industrial arts program should be to develop on the interest level of the pupils certain abilities, knowledge, appreciation, and activities in connection with the projects taught. The putting into effect of an industrial arts course of study in harmony with modern educational philosophy will do much to improve children's everyday living between the ages of 6 and 13 years and to lay the foundation necessary to a later understanding of vocational needs and of the services rendered through the different vocations.

The repair and even the making of some of the ordinary toys and utensils and the making of much of the equipment and appliances used in connection with the plays, games, and dramatic work of children are among the projects suggested.

The work should be offered to both boys and girls. Both should become acquainted with such problems as those relating to planning, heating, lighting, furnishing, and caring for a home. Both need to know the materials used in house construction, their sources, costs, and comparative values.

The subject of industrial arts teaching is a broad one. At the present time few teachers are well prepared to teach the subject. Consequently, a State course of study should include several outlines carefully elaborated. This report is of necessity limited in the number of suggestions it can give for successfully carrying on an industrial arts program. Two outlines helpful in teaching one important phase of the subject are submitted.

A project in the field of home-making entitled "How Boys and Girls Can Contribute to a Happy Home Life" is selected for development in the fourth, fifth, and sixth grades. The value of milk is one of the problems to be considered in the study of this project. The following outlines on the contributions of boys and girls to a happy home life and on the value of milk are suggestive:



## HOW BOYS AND GIRLS CAN CONTRIBUTE TO A HAPPY HOME LIFE

- I. Family members responsible for a happy home.
- II. Home duties in the intelligent performance of which boys and girls should share.
  - A. General household activities: (1) Cleaning porches and yard. (2) Running errands. (3) Caring for the baby and younger children. (4) Making beds and caring for bedrooms. (5) Sewing on buttons. (6) Cleaning silver. (7) Keeping and putting things in order.
  - B. Activities connected with the serving of food: (1) Setting the table. (2) Serving the meal. (3) Clearing the table. (4) Washing the dishes. (5) Caring for dish cloths and towels. (6) Putting kitchen and dining room in order.
  - C. Weekly household activities: (1) Washing. (2) Ironing. (3) Mending. (4) Cleaning. (5) Entertaining.
- III. Health needs of boys and girls.
  - A. Kinds of foods needed for growth and repair, work and play, and regulatory purposes.
  - B. Appropriate clothes for varying weather conditions.
  - C. Hygienic living conditions.
- IV. Behavior characteristics of a well-mannered child: (1) In the home. (2) At the table. (3) In the schoolroom and yard. (4) At entertainments. (5) In business places. (6) On the street and in the street car.

The project is well adapted to tie up the home with the school; to teach boys and girls how to become helpful in the home; and to develop in them appreciation of their daily needs and of the ways in which the home contributes to the satisfaction of these needs.

## OUTLINE FOR TEACHING THE VALUE OF MILK

- I. Source of milk.
  - A. Cows kept free from disease.
  - B. Necessity of good breeds.
  - C. Quality of milk influenced by cow's ration.
  - D. Clean barns and surroundings.
  - E. Sanitary condition of milker's clothes and hands, cow's bag, milk buckets, and strainers.
  - F. Pasteurizing, capping and delivering the milk.
- II. Food value and uses of milk.
  - A. Its composition and comparison with other foods.
  - B. Daily amount needed by children.
  - C. Different forms in which milk may be taken by children.
- III. Commercial preparations made from milk: Malted milk; condensed milk; evaporated milk; milk powder.
- IV. Care of milk in the home: Kept in sanitary cellar, spring, or ice box, in clean covered utensils.

Since the industrial arts program should be based primarily upon the daily necessities and interests of children or the usage of products fundamental to efficient living, it is apparent that the teaching of industrial arts should enrich and stimulate practically all the



other subjects of the elementary curriculum, correlate them with the daily activities of life, and thereby strengthen the whole school curriculum.

In the treatment of any topic the following suggestions, from Winslow's Organization and Teaching of Art, will be helpful to the teacher who desires to secure rather complete information on the topic chosen. The topic should be considered from the following points of view:

(1) The value of the industry to man; how we are affected by it; (2) the evolution of the industry, its story, its heroes of invention (history); (3) characteristics of the product; what constitutes excellence; (4) materials employed; where they come from (geography); (5) processes involved; (6) tools used; (7) healthfulness (hygiene); (8) hours and wages; (9) the training of the workers; (10) the part played in the industry by the various school subjects; (11) the part played by drawing and design; (12) references to the industry found in literature; (13) the industry as depicted in painting and sculpture.

Because of the close relationship of industrial arts to the other subjects, it should be taught by the regular elementary teacher rather than by a special teacher. It may seem advisable, beginning with the fifth grade, to devote a separate school period per week to the subject, and wherever possible to provide a separate room with the necessary equipment, such as benches, tools, and facilities for the teaching of food and clothing. For the fifth and sixth grades in the k-6-3-3 plan of the larger school systems, it may be advisable to have the subjects taught one period per week by the special teachers of industrial arts and home economics.

In the one, two or three room schools with eight grades such enrichment of the curriculum as suggested in this portion of the survey report is difficult, through time limitation on the teacher's part and lack of instructional equipment. However, it is possible to do considerable in industrial arts teaching even under these circumstances by integrating its teaching with that of other school subjects and by capitalizing the opportunities afforded in rural life for an industrial arts program. Rural children face real life situations concerning food, clothing, and shelter, more directly than do any others. They bring to an industrial arts period much first-hand knowledge and an already awakened interest, which facilitate their progress in this subject.

*Summary and conclusions.*—The revised Utah elementary State course of study should outline an industrial arts program which will, (1) provide boys and girls with a graphic vocabulary as a tool of expression; (2) develop their appreciation of line, form, and color; (3) develop a reasonable amount of skill in the use of this



vocabulary and the use of these media (line, form, and color) in expressing home and industrial ideas and experiences acquired in the study of the elementary school subjects; (4) give boys and girls alike selective information and experiences which will enable them to become intelligent consumers of the common needs of life; and (5) socialize their ideas and appreciations for the everyday living conditions of the people engaged in the industrial pursuits needed to supply these common needs.

#### ELEMENTARY-SCHOOL CURRICULA—TIME ALLOTMENT

(Based on studies of daily time schedules)

The quality and quantity of school work achieved by the pupils in a State depend somewhat upon the total amount and distribution of time devoted to the various school subjects. Consequently, the Bureau of Education secured data showing the average number of minutes allotted per week to the different school subjects in each of the grades of the elementary-school curricula. District and city superintendents were requested to select one school from each of the four following types and give the time allotments as scheduled in their daily programs: A one-teacher, a two to four teacher, a five to eight teacher, and a nine-teacher or larger elementary school. For comparative purposes the data requested were to be from the so-called "academic elementary schools" and were not to include grades organized on the platoon or the junior high school basis. Both the study (omitting home study) and the recitation periods were to be included in the time allotted for each school subject.

*Average allotments in Utah and in 49 cities.*—The average (arithmetical) time allotment for the four types of schools as reported by 22 districts in the State of Utah, together with that for 49 cities reported in Bureau of Education City School Leaflet No. 19, "Time Allotments in the Elementary School Subjects," is given in the following table:



Elementary-school grades (junior high-school grades not included)

1 No reports were received from the following districts: Beaver, Box Elder, Cache, Daggett, Emery, Garfield, Grand, Juab, Kane, Morgan, Murray, Piute, Provo, Rich, San Juan, South Summit, Tooele, Uintah.

<sup>1</sup> No reports were received from the following districts: Beaver, Box Elder, Cache, Daggett, Emery, Garfield, Grand, Juab, Kane, Morgan, Murray, Piute, Provo, Rich, San Juan, South Summit, Tooele, Uintah.

n, South Summit, Toeale, Uintan.  
Time not given for the subjects separately.



During the eight years of the elementary school course in the 49 cities used as a basis for comparison, the average pupil spends over 14 per cent more time in school than does the average pupil in Utah. This additional amount of time is the equivalent of more than an extra year spent in school. But regardless of these fewer hours spent in school, the average pupil in Utah devotes 12 per cent more time to spelling than the average city pupil; 10 per cent more time to history and civics; 46 per cent more time to science, including nature study; 84 per cent more time to hygiene, including physiology; and 16 per cent more time to recess and supervised play, noon hour not included. The larger amount of time spent on the aforementioned subjects in Utah than in the 49 cities, together with the fact that a fewer total number of hours are spent in school during the period normally required to complete the elementary school curriculum, results in a considerable decrease in the amount of time devoted to certain of the other subjects in the curriculum. Among the subjects sustaining the greatest percentage of loss when compared with the city schools are language, including grammar, which is given 38 per cent more time in the city schools; reading, including phonics, 12 per cent more time; arithmetic, 13 per cent more time; geography, 23 per cent more time; physical training, 205 per cent more time; industrial arts and drawing, 99 per cent more time; and music, 7 per cent more time.

In the table here given the time allotments are grouped and totaled for all the elementary school grades according to the general classifications known as the three R's (subjects listed as numbers 1 to 5 in the preceding table), the content subjects (6 to 10), and the special subjects (11 to 17).

TABLE 2.—Time allotments in the elementary school grades

Subject	Utah		49 cities	
	Minutes per week	Per cent total time	Minutes per week	Per cent total time
Three R's.....	5,283	50.6	6,036	50.6
Content subjects.....	2,014	19.3	1,853	15.6
Special subjects.....	3,141	30.1	4,045	33.9
Total.....	10,438	100.0	11,934	100.0

In Utah the three R's are allotted the same percentage of the total time given to all of the elementary school subjects that they are in the 49 cities; the content subjects receive a slightly larger percentage of the total time; whereas the special subjects receive a slightly smaller percentage of the total time. These data, together



with those in the paragraph pertaining to the relative loss or gain in total time given the different subjects in Utah in comparison with those in the 49 city schools, indicate that the allotment of time to the different subjects within each of the general groups rather than to the groups themselves should be studied by the proposed research division with a view to making reallocations.

*Allotments in newer types of schools.*—If the data used in these comparisons had been from schools organized on bases of any of the comparatively newer types of schools, such as the platoon, the work-study-play, or the junior high school, instead of from the so-called "academic elementary schools," relatively more time would have been given to the special subjects. In many cases the length of the school day has been increased in the newer types of organizations, so that the three R's receive approximately as much time as they do in the "academic" elementary schools.

*Allotment in first six grades: Utah, Salt Lake City, State course of study, 49 cities.*—In order to furnish data desired in the interpretation of the achievement test results, the relative amounts of time allotted to the different school subjects in the State are given in the following table, together with the time allotments for a typical "academic" elementary school in Salt Lake City. The weekly time allotments totaled for the first six grades are given in each case. Similar data from the 49 cities and from the "Time apportionment" recommended by the State department of public instruction in the Course of Study for Elementary Schools are also included for comparative purposes.

TABLE 3.—Total average number of minutes per week allotted to the school subjects in the first six elementary-school grades

Subject	Minutes per week allotted in 6 grades				Per cent of total time using 8,801 (average total for 49 cities) as base			
	Utah	Salt Lake City	Utah course of study	49 cities	Utah	Salt Lake City	Utah course of study	49 cities
1. Language, including grammar.....	647	800	525	905	7.4	9.1	6.0	11.3
2. Reading, including phonics.....	1,490	1,650	1,350	1,725	16.9	18.8	15.3	19.6
3. Spelling.....	488	525	280	453	5.5	6.0	3.1	5.1
4. Penmanship.....	410	525	220	446	4.7	6.0	2.5	5.1
5. Arithmetic.....	889	925	675	1,028	10.1	10.5	7.7	11.7
6. History.....	370	250	494	301	4.2	2.8	5.6	3.4
7. Civics.....	80		344	73	1.0		3.9	.8
8. Geography.....	450	700	419	539	5.1	8.0	4.8	6.1
9. Science, including nature study.....	148	225	344	133	1.7	2.5	3.9	1.5
10. Hygiene, including physiology.....	249	75	400	120	2.8	.9	4.5	1.5
11. Physical training (No. 12 not included).....	211	240	340	535	2.4	2.7	3.9	6.1
12. Recess and supervised play (noon hour not included).....	772	1,050	900	699	8.8	11.9	10.2	8.0

1 Data taken from Table 1.

2 Data taken from time allotment schedule for "typical academic" school reported by city.

3 Data taken from Utah Course of Study for Elementary Schools, August, 1923.

4 The 575 minutes given "development work" in the first three grades was apportioned equally among the four school subjects listed under this head.



TABLE 3.—Total average number of minutes per week allotted to the school subjects in the first six elementary-school grades—Continued

Subject	Minutes per week allotted in 6 grades				Per cent of total time using 8,801 (average total for 49 cities) as base			
	Utah	Salt Lake City	Utah course of study	49 cities	Utah	Salt Lake City	Utah course of study	49 cities
13. Industrial arts, including sewing, cooking, woodworking, etc.	53	655	775	214	0.6	7.4	8.8	2.4
14. Drawing	370			505	4.2			5.7
15. Music	416	525	500	446	4.7	6.0	5.7	5.1
16. Opening exercises	309	375			3.5	4.3		
17. Miscellaneous	482	80	665	583	4.1	.9	7.6	6.6
Total	7,714	8,600	8,231	8,801	87.7	97.8	93.5	100.0
Less than time given in 49 cities	1,087	201	570	0	12.3	2.2	6.5	0
	8,801	8,801	8,801	8,801	100.0	100.0	100.0	100.0

The weekly time allotments totaled for the first six grades in Utah average 1,087 minutes, or 12.3 per cent, less time than is given in the 49 cities; in Salt Lake City it averages 201 minutes, or 2.3 per cent less; and in the allotments recommended by the State course of study it averages 570 minutes, or 6.5 per cent less. Stated differently, allowing 36 weeks to the school year, a pupil in a school in Utah spends approximately 27 weeks less time in school during the first six years of his elementary school period than the average pupil in the 49 cities; in Salt Lake City he spends five weeks less time; and in the allotments recommended by the State course of study he spends 14 weeks less time.

A study of the percentage columns in the table shows considerable variation among the schedules. During the first six years the average school in Utah gives 44.6 per cent of its time (using 8,801 minutes as the basis for the computations) to the three R's; in Salt Lake City, 50.4 per cent; in the State course of study, 34.6 per cent; and in the 49 cities, 52.8 per cent. The average school in Utah gives 14.8 per cent of its time to the content subjects; in Salt Lake City, 14.2 per cent; in the State course of study, 22.7 per cent; and in the 49 cities, 13.3 per cent. The average school in Utah gives 28.3 per cent of its time to the special subjects; in Salt Lake City, 33.2 per cent; in the State course of study, 36.4 per cent; and in the 49 cities, 32.9 per cent. Thus, it is evident that the average school in Utah gives a decidedly smaller amount of time to the three R's and the special subjects than does the average Salt Lake City school, or the average school in the 49 cities, whereas it gives a larger percentage of time to the content subjects. That the average school in the State devotes a proportionally larger percentage of time to this group may be partially explained, no doubt, by the pronounced interest in



history (especially local history), hygiene, and like subjects shown by the followers of the dominant faith in the State. For the most part a highly homogeneous population is found in the school districts outside of the Salt Lake City district. The prevailing form of cooperative community life found among the people, supplemented by their interest in and preparation for extensive missionary practices, have resulted in a greater interest in the social studies than is found in Salt Lake City or in most of the States. In passing, it may be well to call attention to the fact that the Utah State course of study in comparison with the others given allots considerably less time to the three R's, more to the special subjects, and much more to the content subjects.

*Allotment and educational achievement: Utah, United States averages.*—In order to study the effect on the educational achievement of the pupils, as measured by standardized tests, as influenced by the time allotted to the study of the different subjects, the following table has been prepared:

TABLE 4.—Time allotments and educational achievement

Subject in Stanford achievement test	Elementary school grades 1-6, inclusive			Average number of school months Utah pupils in grades 1 to 8 are below the United States average
	Minutes per week allotted in 49 cities <sup>1</sup>	Per cent of time Utah gives compared with that given in the 49 cities		
		More	Less	
Language usage.....	995		3.9	4.7
Reading.....	1,725		2.7	3.5
Spelling.....	453	0.4		2.5
Arithmetic.....	1,028		1.6	2.0
History and literature <sup>2</sup> .....	3,094		5.8	2.7
Nature study and science <sup>3</sup> .....	1,517		2.8	2.0

<sup>1</sup> Data taken from Table 1.

<sup>2</sup> For comparable data, civics, language, and reading are included under this heading.

<sup>3</sup> For comparable data, geography, hygiene, industrial arts, and drawing are included under this heading.

In every subject, except spelling, the pupils in the first six grades in Utah not only spend less total time on the subjects tested, but they are in achievement from 2 to 4.7 school months below the average pupil in the United States. In the different subjects in the grades they range from 0 to 8 school months below the average pupil. In spelling, although they spend more time studying the subject, they are 2.5 school months below the average pupil in the subject. That the pupils continue to remain below the standard norms, becoming increasingly further below in the seventh and eighth grades, averaging from 3.3 to 6.4 school months (with a range from 5 to 12 school months in the different subjects), is indicated in the last column of data in Table 4.



*Allotment and educational achievement: Utah, Salt Lake City.*—The following table has been prepared in anticipation of the question, What effect has the longer time allotments in the Salt Lake City district on the educational achievement of its pupils compared with that of the pupils in the county school districts?

TABLE 5.—Time allotments and educational achievement of elementary-school grades 1 to 7, inclusive

Subject in Stanford achievement test	Minutes per week allotted in districts <sup>1</sup>		Per cent that time given subject in Salt Lake City exceeds that given it in county school district	Average number school months the 3, 4, and 7 grade pupils in Salt Lake City are in advance of county school district pupils
	County school	Salt Lake City		
Language usage.....	825	1,025	24.2	14.5
Reading.....	1,646	1,875	13.9	13.3
Spelling.....	582	625	9.0	13.3
Arithmetic.....	1,081	1,150	6.4	12.7
History and literature <sup>2</sup> .....	3,081	3,200	3.9	9.0
Nature study <sup>3</sup> .....	1,534	2,020	31.7	9.0

<sup>1</sup> Data taken from Table 1.

<sup>2</sup> For comparable data, civics, language, and reading are included under this heading.

<sup>3</sup> For comparable data, geography, hygiene, industrial arts, and drawing are included under this heading.

According to the preceding table, the Salt Lake City district allots more time, varying from 3.9 per cent to 31.7 per cent, than the county school districts to each of the subjects tested in the survey. The Salt Lake City pupils score from 9 to 14.5 school months (10 months are considered the equivalent of a school grade or year in the Stanford achievement test) in advance of the county district school pupils in the tests given. It will also be noted that, except in the case of the nature study and science test, a positive correlation exists between the amount of time allotted to the different subjects and the achievement in those subjects. The greater the additional per cent of time allotted a subject in the Salt Lake City district compared with that allotted in the county school districts, the greater the achievement was found to be between the average pupil in Salt Lake City district compared with the average in the county school districts.

*Summary of recommendations.*—1. The length of the average school day in Utah may be increased considerably without exceeding the length of the school day for pupils or teachers found in many progressive school systems. Consideration may well be given to increasing the number of weeks in the school year.



2. The percentage of time allotted to the three R's, the content subjects, and the special subjects is generally in accord with the time allotments in the 49 cities. However, the percentage of time given to the different subjects within the groups should be reallocated in keeping more nearly with the results of scientific investigations, where possible, or standard practice.

3. More time should be allotted to the "special" subjects in accordance with the aims of modern education.

4. The new research division in the State department of public instruction, in cooperation with the graduate departments of education of the State institutions, should collect and interpret data and information concerning the relation and effect of time allotments on the educational achievement of elementary school pupils.

#### TIME ALLOTMENT AND ORGANIZATION OF HALF-DAY SCHOOL SESSIONS IN PRIMARY GRADES

There is a tendency among the school districts of Utah to provide but half a day of school for the two lower primary grades. Questions arose among the survey staff as to the cause for this general practice and its relation to efficiency in the progress and achievement of pupils concerned. From the findings of a study on the "Effectiveness of Half-Time Sessions" recently made in Detroit,<sup>1</sup> school superintendents will find no encouragement for the half-day plan. The Detroit study was made in grades 1 and 2, and the following conclusions were reached:

1. The general effect is unquestionably harmful. Half-day achievement is lower than that of corresponding children who have the advantage of full-day sessions.

2. The amount of harm is roughly proportional to the diminution in the time allowance. In reading and spelling, which have much less time in half-day schedules, the achievement is very much less on the average; in arithmetic, which has almost the same time allowance in half-day schedules, the achievement is about the same as in full-day sessions.

3. There is apparently no differential effect upon children of different sexes. That is, boys and girls appear to be injured equally on the average.

4. There is a slight differential effect upon children of different ages. Children who are young or old for their grade tend to be injured somewhat more than children of normal age.

5. The differential effect upon ability groups is somewhat surprising, for both superior and inferior seem to be injured more than average children.

6. The harmful effect is clearly greater upon children with poor home conditions than upon those with good home conditions.

7. The harmful effect is greater upon children who have lower degrees of control over English than upon those who have higher degrees of control.

*Investigation of half-day schools in Utah needed.*—Such a study emphasizes the need for an investigation of half-day session schools

<sup>1</sup> Effectiveness of Half-Time Sessions, Research Bul. No. 11, Feb., 1926. Board of education, Detroit, Mich.



in Utah. The survey staff made an inquiry to trace the history of the half-day session organization within the State, to see how prevalent it is, and to make comparisons of school activities in half and full day sessions. For the sake of simplicity this inquiry was confined to first and second grade classrooms where but one grade was assigned to a teacher.<sup>2</sup> Of the 18 responses, 12 are from districts holding half-day sessions in first grade, 9 of which hold them in both the first and second grades. Six districts, only one-third of those responding to the inquiry, reported all grades on full-day sessions.

*History of half-day sessions.*—According to the responses to the inquiry, half-day sessions were begun in two districts in 1912. It is evidently a local problem in the several districts, since no general date is outstanding for starting this practice. One district, which started half-day sessions in 1919, has now returned to full-day work.

Seven of the 12 districts reporting half-day sessions attribute their original organization to an emergency. This "emergency" was both a lack of classroom space and a lack of money for adequate teachers' salaries. Evidently the other 5 districts established half-day sessions because they preferred them to full-day work.

Beginning as an emergency measure in many cases, half-day sessions in first grades have now become an established policy in 10 of the 12 districts. Five of the districts carry this policy over into the second grade, but none carry it above the second grade.

*Number of children on half-day programs.*—In the 18 districts responding to the inquiry 60 per cent of the children reported as enrolled in first grade and 46 per cent of the second grade enrollment were attending half-day sessions of school. In approximately half the districts this half-day means a 3-hour day. The other half of the districts give only a  $2\frac{1}{2}$  or  $2\frac{3}{4}$  hour day. It can easily be seen how these short days, if accurately computed into years of schooling at the regular  $4\frac{1}{2}$  or 5 hour day, would reduce the total number of years of school attendance now reported for Utah's pupils.

*Size of classes.*—That the "emergency" measure is no longer a real issue in the matter of half-day sessions is evidenced by the average number of pupils per teacher. First grades on half-day session have an average of 16.6 pupils per teacher and second grades have an average of 15 pupils. In full-day sessions the average for first grade is 26.5; for second grade 29.8; for third grade 27.5; for fourth grade 29; and for fifth grade 30.4. This teacher load is far below the average for the country as a whole, and the half-day enrollments could

<sup>2</sup> Eighteen of the 35 districts responded to the inquiry. Some of the information requested was incompletely given, reducing the number of districts represented in each of the points discussed.



easily be doubled, giving the full 30 or 33 pupils the advantage of the extra time in school.

The minimum number of pupils required for dividing a group into two half-day sessions was reported as 40 in seven of the districts. One district permitted this division for groups ranging anywhere from 28 to 62 pupils, and other districts placed the minimum at 50 and 60. A careful assignment of grades to teachers and a careful distribution of pupils among the grades might, in most districts, provide full-day school work for pupils.

*Time distribution—full-day v. half-day sessions in first and second grades.*<sup>3</sup>—The average length of the first and second grade half-day sessions, including recess period, is 2 hours and 40 minutes, and for the full-day sessions the average length is 4 hours and 5 minutes. Children attending full-day sessions have 1 hour and 25 minutes more school time than have the children attending the half-day session. The teachers' programs in the latter, however, include all curriculum subjects covered in the full-day program. Each subject is given relatively less time than in the full-day session, and the children attending school but a half session each day are expected to be ready for the next grade at the end of the year.

By using as bases the total average number of minutes allotted to first and second grades in the Ayers study,<sup>4</sup> a comparison can be made of the proportionate distribution of time for full and half day sessions in Utah with sessions in 49 cities throughout the country. Combining reading, spelling, language, writing, and arithmetic as "the three R" subjects of the curriculum, the following comparisons may be made:

*First grade.*—1. Half-day sessions in Utah give 22.3 per cent less time to the three R's than is common practice in 49 cities.

2. Full-day sessions in Utah give 34 per cent more time to these subjects than the half-day sessions do, though they are still short 5.1 per cent of the average for 49 cities.

*Second grade.*—1. Half-day sessions in Utah give 28.1 per cent less time to the three R's than is common practice in 49 cities throughout the country. This is an even larger shortage than is true of the first grade.

2. Full-day sessions give 39.5 per cent more time to these subjects than the half-day sessions do, and are still 7.5 per cent short of the average for the 49 cities.

The fact that these common-school subjects are given so much less time in the Utah programs than is given them in the 49 cities

<sup>3</sup> Discussion based on 63 time schedules received from 9 districts: 27 half-time and 8 full-time first-grade schedules; 16 half-time and 12 full-time second-grade schedules.

<sup>4</sup> Ayers, Fred C. Time allotment in the elementary-school subjects. Bureau of Education, City School Leaflet No. 19.



throughout the country may be responsible for a weakness in achievement which is reported in the test results of the upper grades.

Combining history, geography, health and hygiene and science into a group called "content subjects," the comparisons of time allotment among full and half day sessions and the 49 cities show no outstanding differences.

Combining physical education, drawing and industrial arts, music, recess (not including noon hour), and miscellaneous periods into a group of "special subjects," there are again certain marked comparisons to be made.

*First grade.*—1. Full and half day sessions have from 11 to 14 per cent less time for these subjects than do the 49 cities.

2. Full-day sessions give these subjects 26 per cent more time than do half-day sessions. This per cent of difference would doubtless be greater were it not for the fact that minutes allotted to "free activity" periods are counted in the section under "miscellaneous." The large amount of time so allotted in the half-day sessions might indicate that these teachers use this period to instruct small groups of children while the greater number of children are working with construction materials.

*Second grade.*—1. Half-time sessions give 16.7 per cent less time to the "special subjects," and full-time sessions 5.2 per cent less time than do the 49 cities.

2. The full-day sessions give 39 per cent more time to the "special subjects" than do the half-day session programs.

The following table gives the figures for the facts just presented:

TABLE 6.—Average minutes per week for full and half day sessions in Utah compared with average for 49 cities

#### FIRST GRADE

Subjects	Per cent of total time allotted, using that for 49 cities as a base			Variation from per cent of time allotted in 49 cities	
	Half day	Full day	49 cities	Half day	Full day
Three R's.....	33.6	50.8	55.9	-22.3	-5.1
Content subjects.....	5.7	6.1	5.8	-1.1	+3
Special subjects.....	26.9	23.9	38.3	-11.4	-14.7

#### SECOND GRADE

Three R's.....	31.4	52.0	59.5	-28.1	-7.5
Content subjects.....	3.1	7.3	5.9	-2.8	+1.4
Special subjects.....	17.9	29.4	34.6	-16.7	-5.2



TABLE 7.—Average minutes per week for full and half day sessions

Subjects	Total minutes				Minutes full session exceeds half-day session		Per cent of minutes full session exceeds half-day session	
	Half day		Full day					
	First grade	Second grade	First grade	Second grade	First grade	Second grade	First grade	Second grade
Three R's.....	432	445	655	735	223	290	34	39.8
Content subjects.....	73	43	78	102	5	59	6	58
Special subjects.....	344	254	466	414	122	160	26	39

*Repetitions and retentions.*—Three districts reporting both half and full day sessions for first and second grades made it possible to compare the number of pupils repeating class work. In the first grades holding half-day sessions more than twice as many pupils will repeat their work next year and nearly twice as many were repeating this year's work as in the full-day session grades. This difference was evident but less marked in the second-grade comparison. The facts justify further inquiry into the expense of retentions due to short school days. The figures are as follows:

TABLE 8.—Repetitions and retentions in full and half day sessions

	Half-day sessions		Full-day sessions	
	Median	Range	Median	Range
<b>FIRST GRADE</b>				
1. Per cent of pupils to be retained next year.....	15	0-23	6	5.5-17.0
2. Per cent of pupils who repeated their grade this year.....	20	0-30	12	5.5-18.0
<b>SECOND GRADE</b>				
1. Per cent of pupils to be retained next year.....	9.6	6-13	5	4-10
2. Per cent of pupils who repeated their grade this year.....	6.2	3.3-30.0	6	5-11

*Half-day session children remaining in afternoon.*—In some schools where both full and half-day schedules are followed there is a problem of transporting pupils. Within the same family there may be one child on half-day schedule and another attending school the full day. If distances are great, the school must provide educative occupation for the child who needs to wait to be taken home. Among the districts sending information there are 2,460 first-grade pupils attending school a half day and 178 of these are in school during the other half day; 63 of the 1,789 second-grade pupils enrolled for half-day sessions are also in school all day. It would be well to examine the use made of this extra half day.

Of the 10 districts which reported how the children's time during the extra half session was used, 4 say that supervised play and occu-



pational work are provided; 3 districts have the pupils attend the regular afternoon session repeating the morning work; 2 districts use the children as "helpers"; and 1 district gives special assignments and some free work to the children.

*Summary and recommendation.*—Judged from the inquiry just described, Utah is establishing the custom of providing 2 hours and 40 minutes a day in half-day sessions for first-grade children. In several districts this custom is being carried into the second grade. This procedure seems either to have grown without much apparent cause or to be based upon a plan for meeting a somewhat imaginary problem of overcrowding by the line of least resistance. Though this problem may be actual in some districts, facts indicate that it is not so in most of them.

Custom based upon opinion not determined by scientifically derived facts that are available should at least be examined. Three districts reported efforts to compare the achievement and progress of two groups of pupils, one group having attended first-grade half-day sessions and the other full-day sessions; two have reading and intelligence tests as their bases for comparison and one has carried out a series of comparative observations. A study in this field to be of value should cover a period of three years. During this time the progress and achievement of groups of pupils having similar distributions of intelligence should be recorded. Certain questions relative to this problem might well be asked: "What is proving to be the most satisfactory practice in Utah for 6 and 7 year old children in the matter of length of school day?" "What measuring rods are available to determine 'satisfactory practice'?" "What division is made of school time among the curriculum activities?" "What size of class can best be handled by a teacher?" "How do these figures compare with the practice in other States of the country?"

Neither the data presented in this discussion nor the inferences drawn are conclusive. With this in mind it is recommended that a detailed study be conducted by the research department of the State to determine the actual time in school provided for first and second grade pupils, the use made of this time, and the effectiveness of full-day compared with half-day sessions in promoting the pupil's educational life.

#### HEALTH SERVICE OF THE ELEMENTARY SCHOOLS

Health is generally conceded to be one of the most important objectives of education. Hence the health service rendered to pre-school and elementary school children through the elementary school system is one of the chief assets of elementary education. It is so



treated in this discussion. The elementary schools of Utah are performing health service through health teaching, health examinations, physical education, and the maintenance of hygienic and sanitary school conditions.

*Health teaching.*—Health teaching as outlined in the State course of study is based on the daily inspection of the children, and the methods suggested are those which have met with general approval. The course of study is supplemented by other useful helps, and in some districts the teachers have the assistance of health directors or of school nurses who have had special training in health education.

Teachers need supervisory assistance in health teaching for two reasons: (1) The subject is new in the curricular field and many teachers are not prepared to teach it; in order to handle it successfully they need supervisory stimulation and guidance. (2) The services of health supervisors in securing the cooperation of parents in the formation of children's health habits are essential. Since what the schools teach concerning the formation of health habits must be carried out in practice chiefly in the home, the health work of the school always limps without the full cooperation of the home. Teachers can do something to secure this cooperation. Experience has demonstrated that supervisors can do much more. Health supervisors, general or local, are invaluable in explaining directly or through parent-teacher associations what the school is trying to do along health lines, and in enlisting the interest of parents in reinforcing the health work of the schools.

*Health examinations—The work of the teacher and of the physician.*—By legislative enactment it is the duty of every teacher engaged in teaching in the public schools of Utah "separately and carefully to test and examine every child under his jurisdiction to ascertain if such child is suffering from defective sight or hearing, or diseased teeth, or breathes through his mouth." It is the teacher's duty to "notify the parent in writing of the presence of defects found and explain to such parent the necessity of medical attendance for such child." These tests are to be made yearly. It is the duty of the local board to enforce these provisions. And the board of any district "may employ regularly licensed physicians to make the tests required."

The State is to be congratulated on its early recognition of the ability of the teacher to detect the physical faults and hindrances to progress in the instruments with which he works. He can and should go much further, for he is not only in a position of vantage in judging as to the condition of the child's vision, hearing, teeth, and whether or not he is a mouth breather, but he has constantly before him the child's general nutrition and exhibition of energy,



his posture, his gait, the signs of acute local or general infection, or chronic disease, and, not least, his mental activity which, to a certain degree, reflects his physical condition. Save for a very small percentage of defects, such as those of heart or lungs, the teacher can be as competent in this periodic examination as the average physician. In addition, an informal health inspection occupying only a few minutes should be made daily by the teacher. The findings of the teacher's periodic examinations should be confirmed and completed by those of the family physician and dentist, but their examinations should only be supplementary.

The school work of the physician is essential, but physicians can never replace teachers and nurses in the health examination and follow-up work of the schools. The teacher is not in a position to make tests requiring technical knowledge and experience. On the other hand, the school physician is not in a position for daily observation of the child. Nor has he the opportunity for seeing that the organic or habitual defects found in the examinations are corrected.

The traditional school medical inspector employed by the local board either to check up the results of teacher or nurse examinations or to do all the examining himself has not proven a success in most districts in Utah. Where he is a thoroughly competent person, well paid, and in thorough accord with the local physicians of the community, the school physician is an ideal person to have connected with the school system, both from the standpoint of efficiency and economy; but even in cities he seldom answers to the first two conditions, and in communities of the nature of those in this State a part-time school physician who is himself in practice, even when worthy of his pitiful hire, is often looked upon with more or less suspicion by such of his conferees as are not overrun with patients.

School medical inspection (including the wholesale prevention of such communicable diseases as are now within our control) can only be done in the most effective way by specially trained and interested school or public-health officials not depending upon medical practice; but such officers are few everywhere in this country and it will be some time before they will be available in Utah.

For the present the best solution of the health-examination phase of the problem seems to be to have the family physician and dentist confirm annually or oftener the examination of the teacher and school nurse, and add what their technical knowledge permits.

*Remedial work.*—The removal of diseases and defects, not the mere finding of them, is, of course, the object of health examinations. The sending of a note to the parents accomplishes results in a comparatively small percentage of cases. The introduction of the school nurse to "follow up" and explain to parents more than doubles this



percentage, while the presence of parents at the examinations removes the need for notes from principals and visitation by nurses and brings the response of parents to suggestions for remedial work to a maximum.

Great variation exists in the different districts in the amount of health work accomplished. As an instance of good follow-up work, one district reported that as a result of a sound-teeth campaign all of the 1,700 pupils of nine schools were able to present certificates from their dentists showing that all defective teeth had been repaired. No examinations at all are reported from a number of districts; the small percentage of children found defective in other districts shows that examinations are far from thorough, while the very small percentage of corrections reported by some superintendents indicates that the work of examination has been well nigh wasted. Probably much of the indifference or ineffectiveness in the matter of health examinations is due to inertia and the feeling on the part of the teacher of helplessness in the presence of new and different demands upon her time. The teachers turned out in recent years by at least one of the training schools of Utah are, however, fairly well equipped along these lines, and we fear the fault lies chiefly in lack of local and State supervision. This surmise would seem to be confirmed by the remark of a principal in whose district the health work is carried on with especial vigor and effectiveness that he has found no other subject so easy to introduce into his curriculum as that of health work.

*Health examinations of preschool children.*—Health service of the schools extends in Utah to preschool children.

By statute, boards of all school districts are authorized to adopt "reasonable measures for the promotion of the physical welfare of children of preschool age, including the education of parents in matters pertaining to child welfare."

This unique legislation should be made effective. The extensive organization of parent-teacher associations helps to make such work practicable, as does also the development of child-welfare clinics by the State department of health. This is as it should be. The periodic health examinations of school children by teachers and physicians, while of the greatest importance, should everywhere be a continuation of examinations begun before children have entered school, for we should not wait until they begin their school work before getting them ready for that work. The truth of this may be easily seen in dental work. The school can secure better preservation of the teeth and more economy in dental work by having the teeth of the children examined upon their eruption and the faults of structure which lead later to decay made good by dental procedure at this time.



*Physical education.*—It is a satisfaction to find a State in which the most important facilities for physical education—playgrounds of adequate dimensions—are so well provided. Some of these grounds could be used for more days in the year if better drained and treated with a suitable top dressing.

What is even more satisfactory than adequate playgrounds is to find these playgrounds used spontaneously to a considerable extent, as was the case everywhere a generation ago, whereas even in rural communities elsewhere there is an unaccountable loss of the spirit for play or the knowledge of how to play.

The recess period seems to be faithfully observed, but the daily time set apart in the grades for physical training is considerably less on the average than that allotted in most cities. While formal exercises are a part of the school program, they do not seem to be accentuated at the expense of more health-affording exercises of the playground. In most districts 80 per cent of the pupils are reported as taking part in organized games.

*Hygienic and sanitary condition of school buildings.*—There is general observance of the conditions of good schoolroom sanitation and hygiene. An exception was found in at least one building in which the pupils were seated in some of the rooms so that their source of light was on the right side. The light should come from the left. In some districts the temperature of the room is not given the consideration it deserves, for the welfare and well-working of the pupils. In at least two districts there are a number of rooms without thermometers, and therefore with no means of knowing the temperature other than the unreliable one of the feeling of comfort on the part of the teacher.

Where thermometers are present attention is not always paid to keeping the temperature within limits for child comfort and best work. In a number of rooms the mercury stood above 70°, though it has been amply demonstrated that children are most comfortable and are most inclined to mental work when the temperature is from 66° to 68°, or with considerable air movement, 70°. On the whole, the sanitary arrangements and conditions were above the average and in many instances model. The washing facilities in some of the districts were especially complete.

*Summary and conclusions.*—A thoroughly trained State supervisor should be appointed to inspire and instruct in methods of health teaching and of health examinations. These examinations should include not only those prescribed by statute, but in addition, such as are mentioned in "What Every Teacher Should Know About the Physical Condition of Her Pupils," Health Education Series No. 18, United States Bureau of Education.



This supervisor should be active in informing the medical and dental professions of the aims of school health work, and through the medium of the parent-teacher associations in enlisting the parents in cooperative work for the health of their children, especially in securing treatment of defects and the formation of hygienic habits.

Where possible, each district should have a person adequately trained to direct and assist the teachers in their health examinations and health teaching, to interest and inform the parents of the objects aimed at and methods used, and to make sure that all possible results in correction of defects and improvement of habits are accomplished. Anything which is worth doing is worth doing well, and particularly is this true of something on which we place so much value theoretically as health.

A minimum of 10 minutes a day should be set apart for health teaching in the first four grades and 15 minutes a day for the fifth and sixth grades. This time is not to be taken from that already allotted to physical-education activities.

#### PUPIL ACHIEVEMENT IN THE ELEMENTARY SCHOOLS

*Standardized tests.*—Two methods are available to learn the efficiency of instruction in the various elementary school subjects. The work of the pupils and teachers may be observed by competent judges. Dependence in any greater degree upon this method than referred to in the sections on elementary course of study and elementary-school teachers seemed inadvisable. Consequently the second method, that of giving standardized mental and achievement tests was relied upon chiefly. This method eliminated the factors of personal bias and inaccurate judgment on the part of the observers and placed the study on a more nearly scientific basis.

The tests were uniformly administered under the direction of the Bureau of Education by members of the survey commission, assisted by members of the State department of public instruction, the college of education of the State university, and the college of education of the agricultural college, and six county or city district superintendents. The scoring and tabulation of results were done by the Bureau of Education.

Since neither the time nor the money was available to carry out a standardized testing program including every elementary school in the State, districts and schools were selected in such a manner as to include all kinds, thus securing a fair and accurate picture of conditions prevailing in the county school districts throughout the State. Pupils were selected from the various grades, ranging from the third to the eighth. For the scores of pupils in the seventh



and eighth grades of junior high schools, see the high-school section of this survey report.

The program of testing was further simplified by securing a random sampling for the State of the pupils in the grades to be tested, employing for the purpose the technique established by scientific workers. A careful checking of the results shows the sampling to be as truly representative of the State as if a larger number of cases had been used. The 11 districts, the 16 schools, and the particular grades chosen in the different schools in which the tests were given are indicated on the accompanying map (fig. 11).

*Tests given.*—Three thousand four hundred and fourteen pupils took the combined tests. The national intelligence tests were given 1,617 pupils (829 boys and 788 girls) in 61 different grade groups, and the Stanford achievement test was given 1,797 pupils (896 boys and 901 girls) in 65 different grade groups. With the exception of a third, a fourth, and a seventh grade in each of four schools in the Salt Lake City district, which were included for purposes of comparison, all of the grades tested were in county district schools. The total number of tests given in each of the different grades is shown in the following table:

TABLE 9.—Total number of tests given in each grade  
COUNTY SCHOOL DISTRICTS

Grade	National intelligence tests given to—			Stanford achievement test given to—		
	Boys	Girls	Total	Boys	Girls	Total
Third.....	134	118	252	156	146	302
Fourth.....	120	103	223	144	119	263
Fifth.....	127	110	237	136	130	266
Sixth.....	110	130	240	127	166	293
Seventh.....	35	33	68	54	47	101
Eighth.....	40	38	78	41	39	80
Total.....	566	532	1,098	658	637	1,295

CITY SCHOOL DISTRICTS

Third.....	64	60	124	73	77	150
Fourth.....	63	63	126	76	83	159
Seventh.....	136	133	269	89	104	193
Total.....	263	256	519	238	264	502

*Stanford achievement test.*—The Stanford achievement test includes a battery of nine tests, each of which is designed to test the pupil's skill or information in some particular phase or field of subject matter, for instruction in which the school is chiefly responsible. The three measures of ability to read included in the test are paragraph meaning, sentence meaning, and word meaning. The two



## UTAH

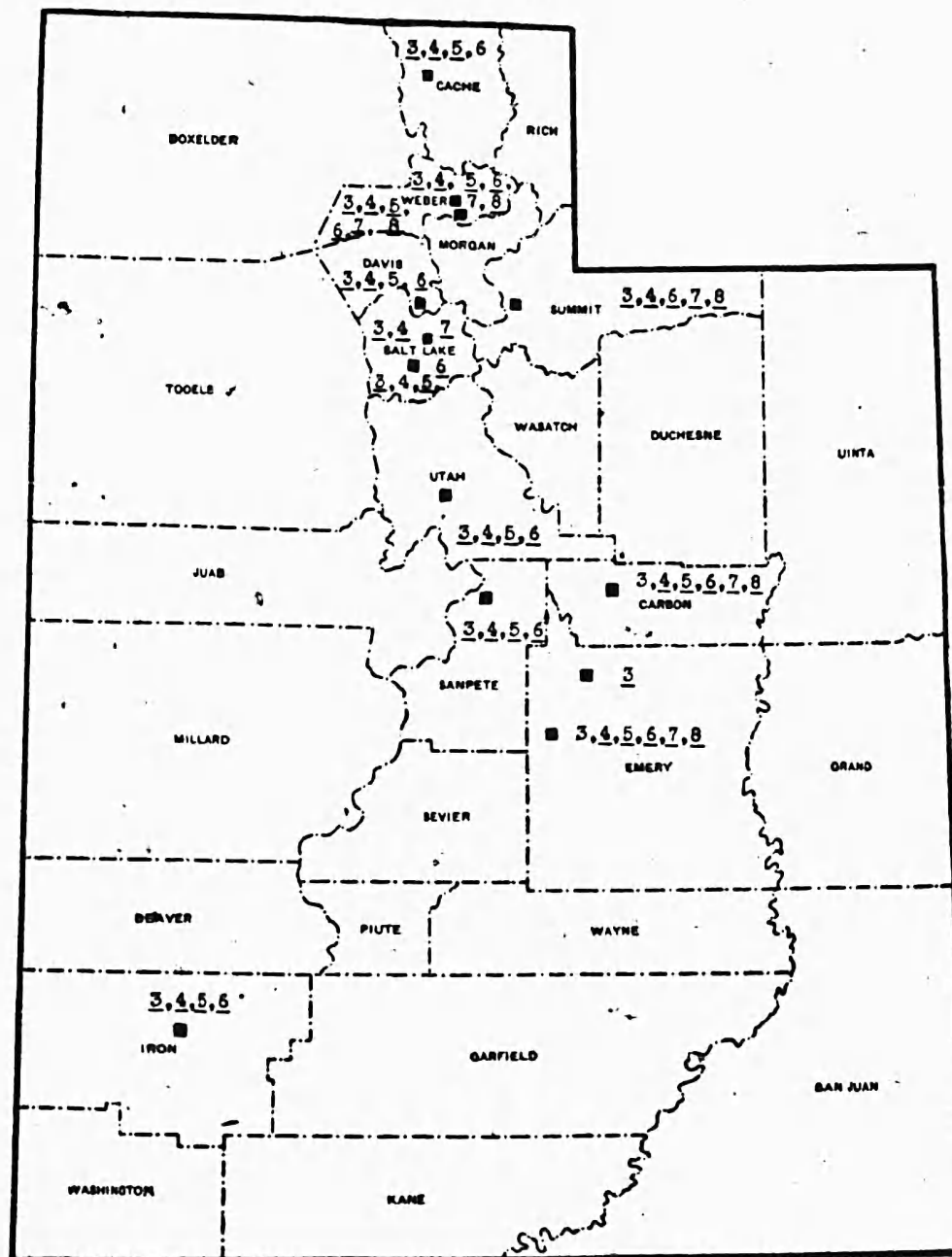


FIG. 11.—Location of elementary schools in which standardized tests were given

Indicates elementary schools chosen as random samplings of those in the State in which to give standardized tests. The numerals represent the grades in which random samplings of pupils were tested. Both the national intelligence test and the Stanford achievement test were given in the grades underscored.



measures of ability in arithmetic included are skill in arithmetical computation and arithmetical reasoning. The other tests included in the battery are designed to measure information concerning the physical world, knowledge of history and literature, knowledge of correct usage of English, and ability to spell, respectively. The primary examination of the Stanford achievement test which was used in the third grade does not include the first three tests mentioned in the preceding sentence. Consequently, in computing averages, it must be kept in mind that test 6 in this examination corresponds to test 9 in the advanced examination.

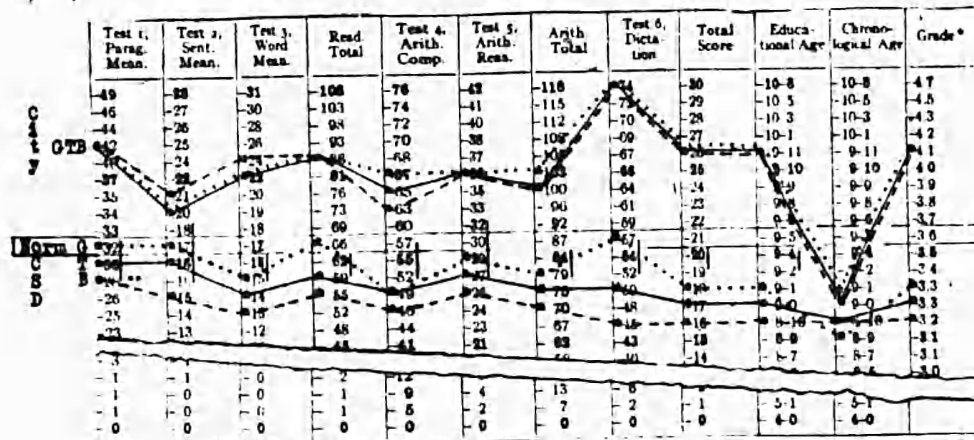
The scores obtained by the pupils are expressed in "grade equivalents." To find the grade equivalent of a score in any one of the tests given, read the grade (last column in the profile charts which follow) which is printed in the same horizontal row as the score under consideration. For example, if a pupil in the fourth grade scores 54 in test 1 (paragraph meaning), it is reported as grade equivalent 5.2, which means it is equal to the work a pupil would normally do in the second month of the fifth grade. Ten months are considered the equivalent of a school grade or year in the Stanford achievement test. Since the tests were given during the latter part of March, or six months later than the month for which the standard norms were computed, six-tenths of a grade has been added to each of the standard grade norms. Thus 3.6, 4.6, 5.6, and so on, become the standard norms to compare with the third, fourth, fifth, etc., grades, respectively, in Utah.

*Educational profile charts.*—The educational profile charts of the different tests given in the several grades follow (figs. 12 and 13). They give the average scores for the pupils in each, the county school districts and the Salt-Lake City district. In addition to the combined averages, they show the average scores of the boys and the girls separately.

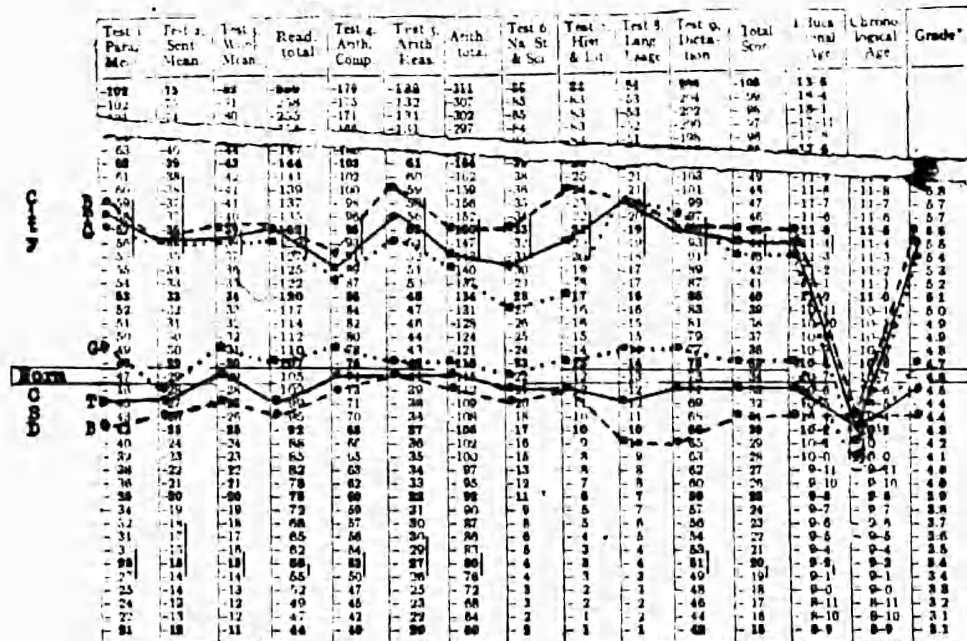
Study of the educational profile charts shows that the scores for the county school districts never exceeded the standard norms for the United States. In the fourth and fifth grades the scores of the county school districts most nearly approached the norms, whereas in the seventh and eighth grades they least nearly approached them. The girls maintained slightly higher scores in general than the boys. In the different tests, however, the boys excelled the girls by an average of nearly three school months in arithmetic reasoning, nature study and science, and history and literature (tests 5, 6, and 7). In chronological ages pupils in the different grades in the county district schools approached the standard norms more nearly in the upper grades, but taken as a whole averaged nearly three months younger. The girls averaged three and a half months younger than the boys.



## GRADE 3: EDUCATIONAL PROFILE CHART

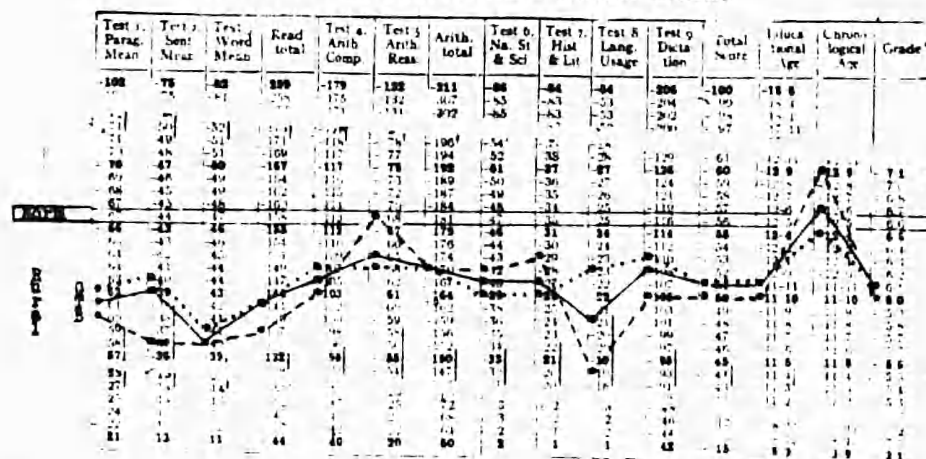


## GRADE 4: EDUCATIONAL PROFILE CHART

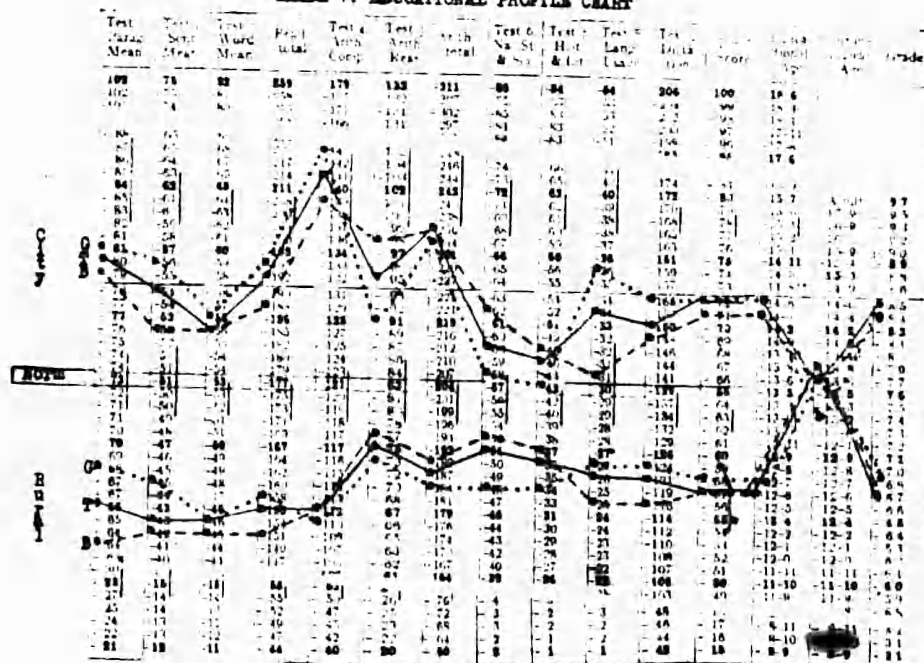




## GRADE 6: EDUCATIONAL PROFILE CHART



## GRADE 7: EDUCATIONAL PROFILE CHART



## GRADE 8: EDUCATIONAL PROFILE CHART

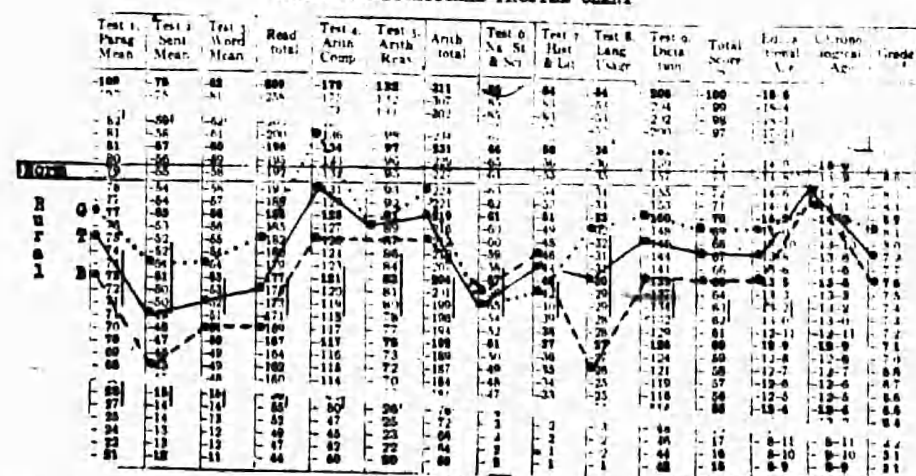


Fig. 13.—Educational profile charts, grades 6, 7, 8. Key.—City, Salt Lake City district; Rural (CSD), County school districts; R, Boys; G, Girls; T, Total; Norm, United States average.



The educational profile charts show the scores of the pupils in the third, fourth, and seventh grades of the four schools in the Salt Lake City district consistently above the standard norms, with a range of from 2 to 22 school months in the different tests and an average of slightly over 8 school months. The pupils averaged the highest scores in paragraph meaning, arithmetic comprehension, arithmetic meaning, language usage, and spelling (tests 1, 4, 5, 8, and 9). The average Salt Lake City boy, unlike the one in the county school districts, slightly excelled in achievement the average girl in his class. The boys excelled the girls from  $3\frac{2}{3}$  to  $6\frac{1}{2}$  months in arithmetic reasoning, nature study and science, and history and literature (tests 5, 6, and 7); but were excelled by the girls by  $5\frac{1}{2}$  school months in spelling (test 9). In chronological ages the pupils in the seventh grade exceeded the standard norms, but taken for the three grades averaged  $2\frac{1}{3}$  months younger. The girls averaged  $2\frac{2}{3}$  months younger than the boys.

In comparing the scores of the third, fourth, and seventh grades for the county school districts with those for the Salt Lake City district, it will be observed that the average for the former was  $4\frac{1}{3}$  school months below the norm, whereas the latter was  $7\frac{2}{3}$  school months above the norm. This condition is to be expected in any State when it is recalled how standard norms are derived. The average difference of  $10\frac{2}{3}$  school months between the girls in the two systems was somewhat less than the average of  $12\frac{2}{3}$  school months between the boys in the two systems. The greatest average difference in scores in achievement appears in arithmetical computation (test 4), and considerable differences are found in language usage, paragraph meaning, and spelling (tests 8, 1, and 9). The least average difference was found in nature study and science (test 6). The average difference in educational achievement between the county school districts and the Salt Lake City district, as measured by the tests, was 12.3 school months.

In chronological age the boys in the six grades tested in the county school districts averaged the norms almost exactly. Expressed in "grade equivalents," the girls averaged two school months younger than the norms. It will be observed, however, that the average "grade equivalent" for the third, fourth, fifth, and eighth grades in the county school districts were four, three, one, and one school months younger than the respective norms, whereas the sixth and the seventh grades averaged one school month older than the norms. In the Salt Lake City district, the boys averaged one school month younger than the norm and the girls three school months younger. As found in the case of the county district pupils, the average "grade equivalent" age for the third and fourth grades was less



than the norms, and for the seventh grade it was slightly higher than the norm. In comparing the ages of the pupils in the county school districts with those of the pupils in the Salt Lake City district, it will be observed that the former averaged one school month

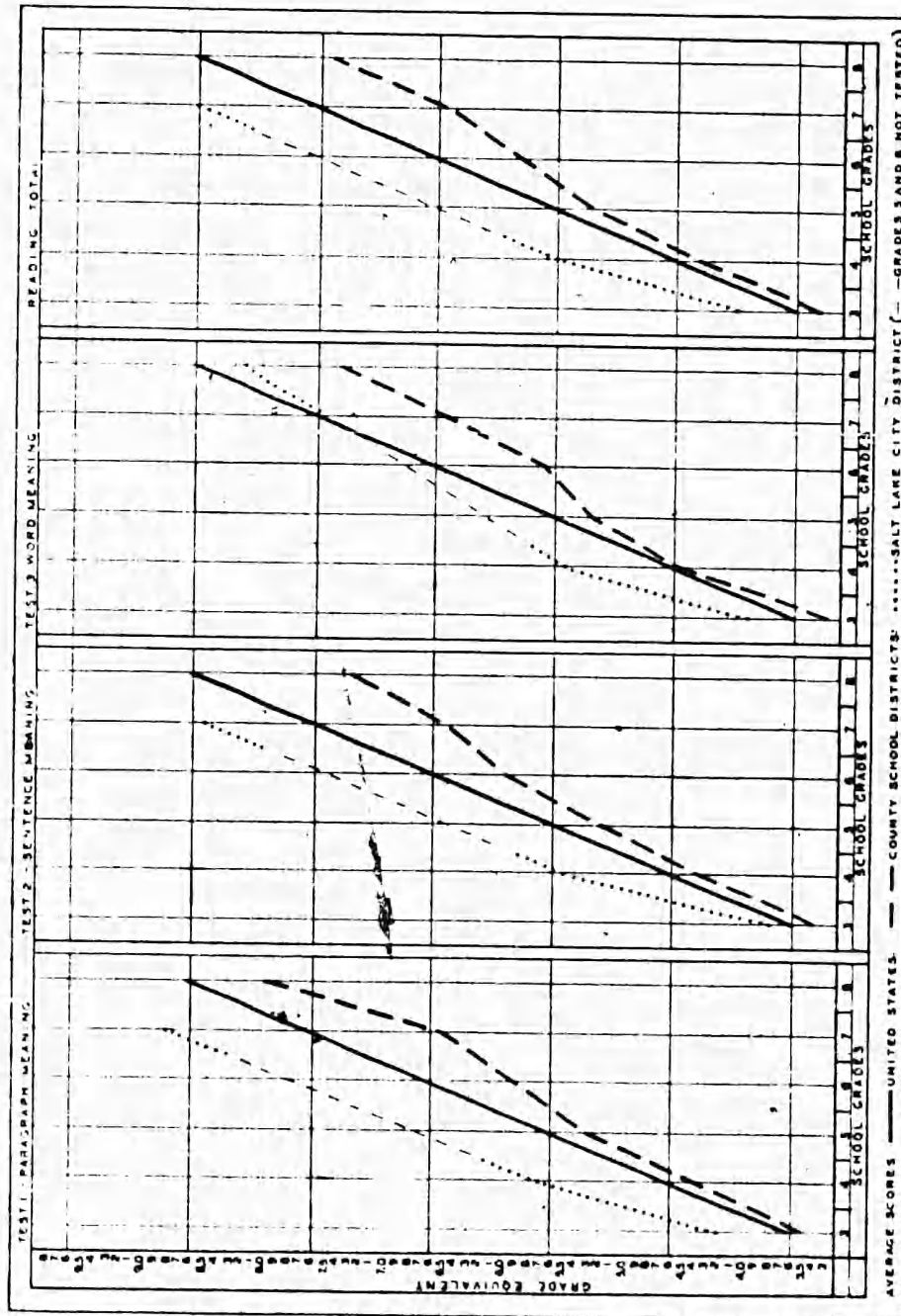


FIG. 14.—Reading tests

younger in the third grade, but averaged the same in each of the other two grades.

*Graphs: Subject achievement.*—In order to facilitate further study of the educational achievement of the different school grades in the school districts, the results are presented in terms of "grade equivalent."



lents" in the following graphs. The results of the reading tests are plotted in Figure 14. The first graph on the figure, test 1, paragraph meaning, is interpreted as follows: In the county school districts (— — — —) the tests were given in grades 3 to 8, inclusive. The average ability of pupils in the third grade to get meaning from connected paragraph reading was equal to the average pupil (grade equivalent, 3.5) in the United States who is in the fifth school month of the third school year. The average ability of pupils in the fourth grade, expressed in grade equivalents, was 4.4; in the fifth grade, 5.3; in the sixth grade, 5.9; in the seventh grade, 6.5; and in the eighth grade, 7.9. The standard norm (————) for the average third-grade pupil in the United States in this test expressed in grade equivalent is 3.6; for the fourth grade, 4.6; for the fifth grade, 5.6, etc. The tests were given in Utah in March, the sixth month of the school year. In the Salt Lake City school district (. . . . .) the tests were given in the third, fourth, and seventh grades, but omitted (— — — —) in the fifth and sixth grades. The average ability of pupils in the third grade in this district expressed in grade equivalents was 4.2; in the fourth grade, 5.7; and in the seventh grade, 8.8. The graphs for the other tests are read in a similar manner.

A general tendency, becoming more pronounced after the fifth grade, was shown on the part of the county school districts to deviate more and more from the norm as the pupils progress through the grades. In the Salt Lake City district, the amount of deviation from the norm increased considerably in the third and fourth grades and then remained nearly constant through the seventh grade, except in word meaning (test 3), where it dropped four school months below the norm.

The results of the arithmetic tests are plotted in Figure 15. The fourth-grade pupils in the county school districts most nearly approach the norms; the seventh-grade pupils deviated from them most. The pupils in the Salt Lake City district tended to deviate from the norms, but the ratio of deviation after reaching the fourth grade became less and less.

Figure 16 includes the graphs for the "grade equivalents" of the educational achievement in nature study and science, history and literature, language usage, and dictation or spelling (tests 6, 7, 8, and 9). In each of the four tests the pupils in the fourth and fifth grades in the county school districts approached the norms very closely; in the upper grades, except in the eighth grade in the dictation exercise (test 9), the tendency was to deviate more and more from the norms as the pupils pass from grade to grade. The pupils in the Salt Lake City district in each of the tests deviate more from the norms in the lower grades and less in the upper grades.



*Graphs: Educational and chronological ages.*—A significant way to express the average total educational achievement of a grade is to give the composite score in terms of its equivalent educational age (second to last column in the preceding educational profile charts). For example, a fourth grade with an average total score of 35 would be interpreted as meaning that the average general educational development of the grade is that of the average child of 10 years and 8 months. This average "educational age," together with the

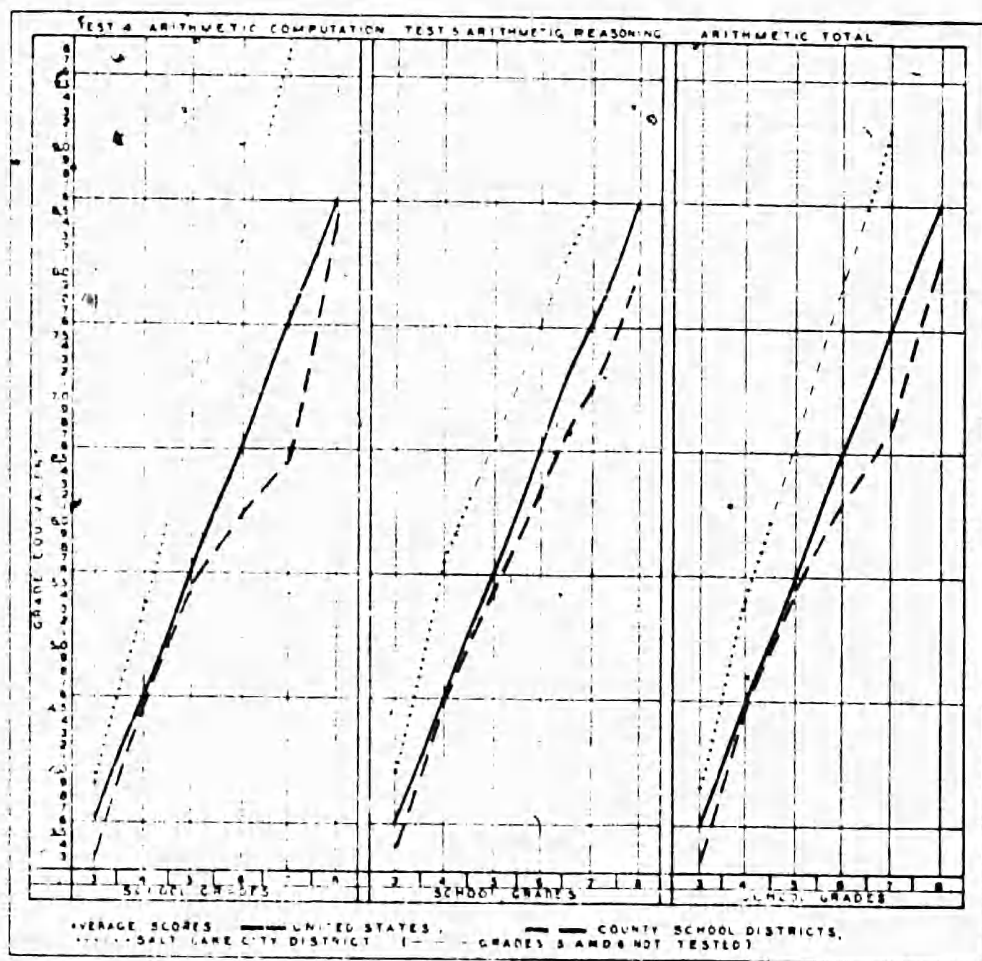


FIG. 15.—Arithmetic tests

average actual chronological age of the pupils in the different grades tested in each of the county school districts and the Salt Lake City district, is given in Figure 17.

In the county school districts the average educational age approached the norm in the fourth grade, but was less than it and deviated more from it in the three upper grades, especially so in the seventh. In chronological ages the pupils averaged slightly younger than the norms in the third, fourth, fifth, and eighth grades, but were slightly older in the sixth and seventh grades. It is doubtful



if the chronological ages of the pupils were chiefly responsible for the lower educational achievement as measured by the tests.

The average educational ages in the Salt Lake City school district exceeded the norms in the different grades. The tendency shown by

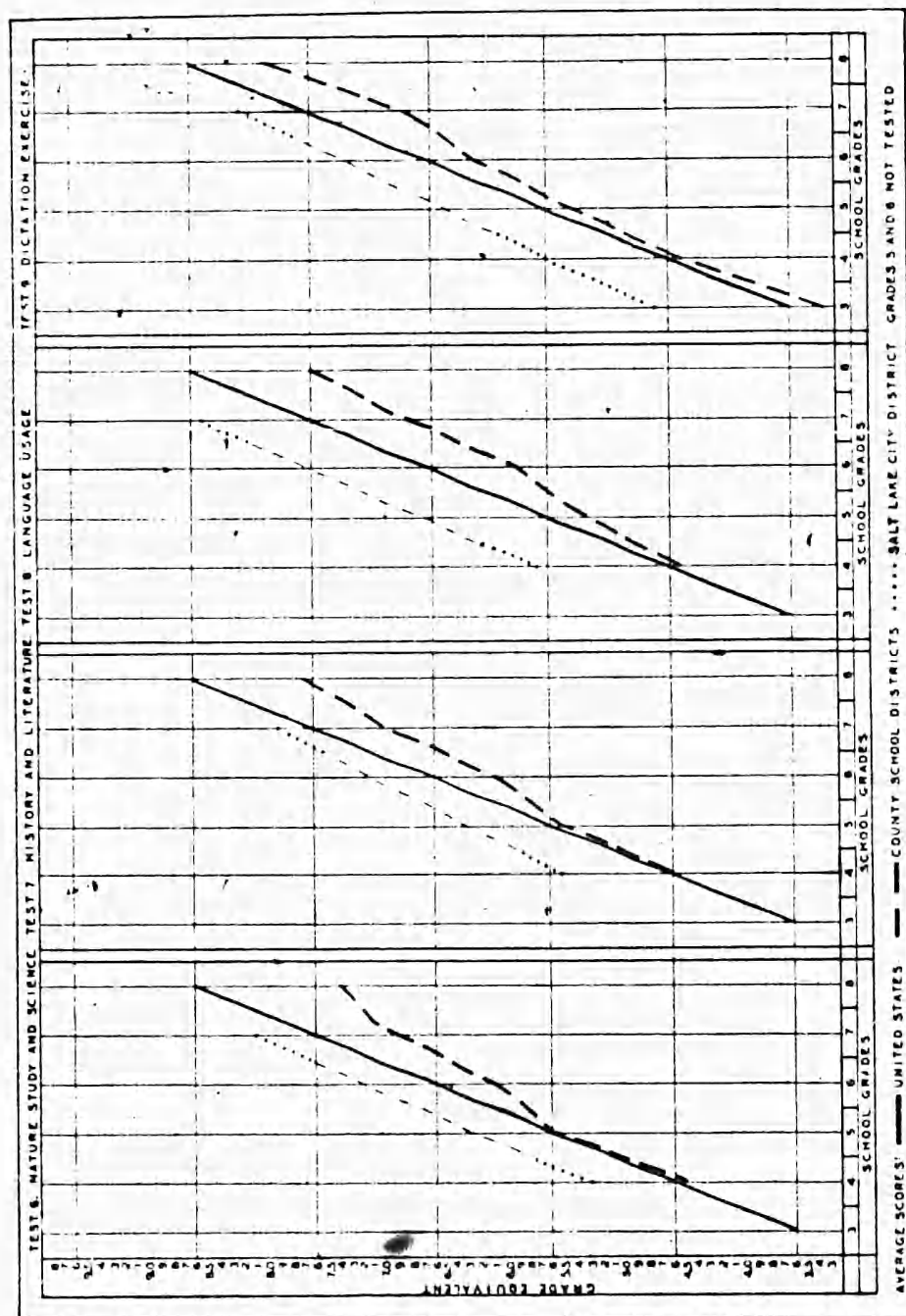


FIG. 16.—Nature study and science, history and literature, language usage, and dictation or spelling tests

the fourth grade to deviate more from the norm than the third was not continued on through the grades to the seventh. In chronological ages the pupils deviated slightly from the norms in that they were younger in the third, fourth, and fifth grades, and older in the sixth and seventh grades. The small amount of deviation from the



norms would indicate that the chronological ages were not chiefly responsible for the higher educational achievement of these pupils as measured by the tests.

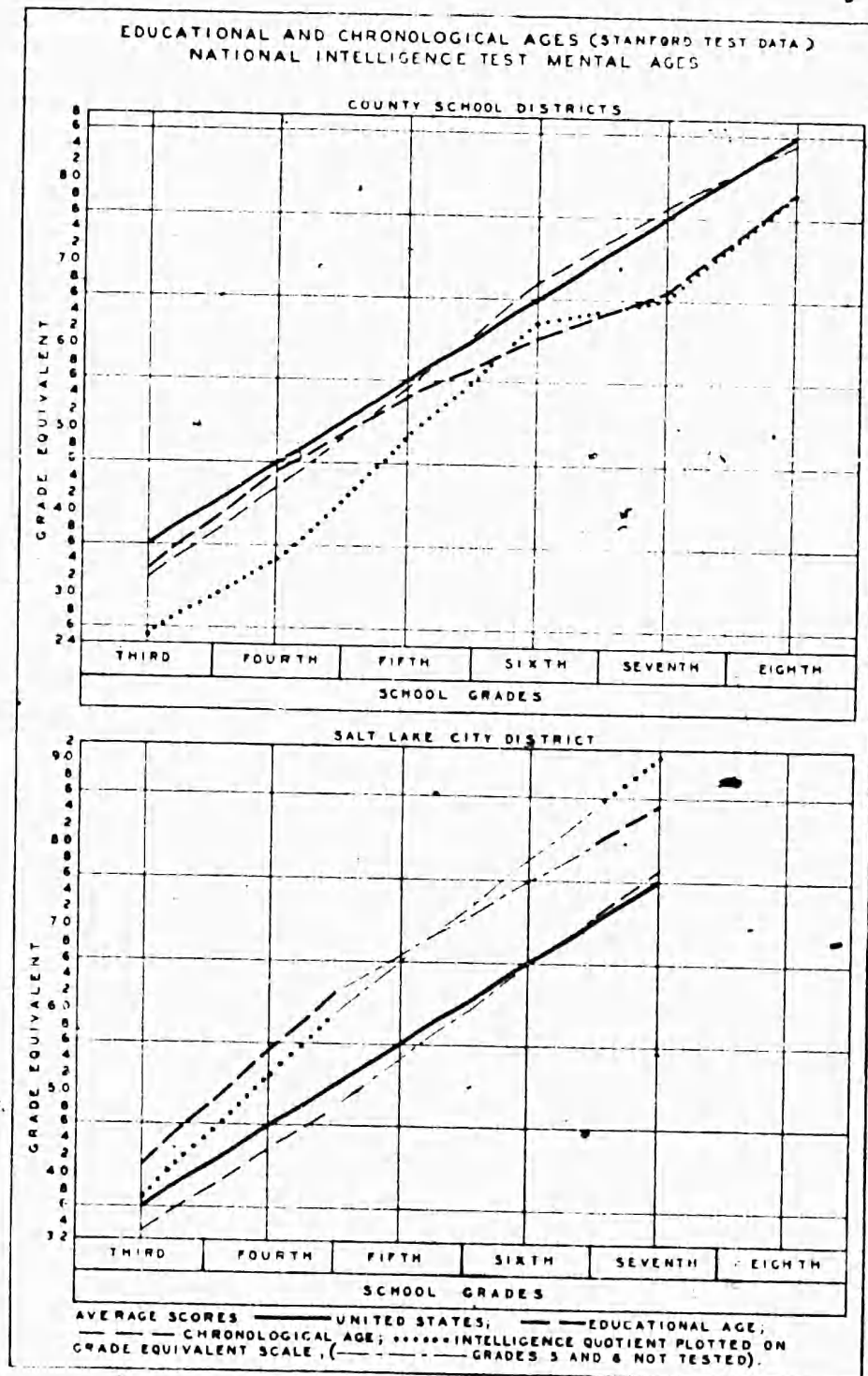


FIG. 17.— Educational and chronological ages (Stanford test data); national intelligence test, mental ages

*Educational quotient.*—The educational quotient (EQ) of a grade is often computed to determine how well the pupils have measured up in educational achievement to what might be normally expected



of average pupils of their chronological ages. It is computed by dividing the average educational age of each group by the average chronological age. The EQ's computed for the boys and the girls separately as well as combined for the pupils in the different grades in the county school districts and the Salt Lake City district are given in column 4 of the following table:

TABLE 10. - Mean educational quotients and accomplishment ratios of Utah pupils

Grade	Educational age <sup>1</sup> (E. A.)	Chronological age <sup>1</sup> (C. A.)	Educational quotient		Intelligence quotient <sup>2</sup> (I. Q.)	Accomplishment ratio	
			E. Q.	F. A. C. A.		E. Q. I. Q.	F. A. M. A.
1	2	3	4	5	6		
<b>Third grade:</b>							
County school district	Yrs. mos.	Yrs. mos.					
Boys	8 10	8 10	100	92	100	105	
Girls	9 1	8 9	104	99	105	101	
Total	9 0	8 10	102	94	108	105	
Salt Lake City district							
Boys	9 11	9 0	110	106	104	101	
Girls	9 11	9 0	110	107	103	102	
Total	9 11	9 0	110	107	103	101	
<b>Fourth grade:</b>							
County school district							
Boys	10 4	10 4	100	93	107	106	
Girls	10 8	10 0	107	105	102	101	
Total	10 6	10 2	103	98	105	104	
Salt Lake City district							
Boys	11 5	10 4	110	106	104	104	
Girls	11 3	10 1	112	113	99	101	
Total	11 4	10 2	111	109	102	102	
<b>Fifth grade:</b>							
County school district							
Boys	11 2	11 6	97	95	102	102	
Girls	11 4	11 4	100	101	98	100	
Total	11 3	11 4	99	97	102	102	
<b>Sixth grade:</b>							
County school district							
Boys	11 10	12 9	93	95	98	98	
Girls	11 11	12 4	97	99	98	97	
Total	11 11	12 6	95	98	97	98	
<b>Seventh grade:</b>							
County school district							
Boys	12 6	13 8	91	85	108	103	
Girls	12 7	13 6	93	91	102	101	
Total	12 6	13 8	91	89	102	100	
Salt Lake City district							
Boys	14 4	13 6	106	106	100	102	
Girls	14 6	13 2	110	105	105	102	
Total	14 6	13 6	107	105	102	103	
<b>Eighth grade:</b>							
County school district							
Boys	13 5	14 6	93	93	100	99	
Girls	14 0	14 4	98	98	100	97	
Total	13 8	14 6	94	95	99	98	

<sup>1</sup> Stanford Achievement test data.

<sup>2</sup> National Intelligence test data.

Although industry and interest on the part of pupils contribute somewhat to higher scores, EQ's much above 100 may be regarded as indicating superior intelligence. To infer low intelligence from low EQ's, however, is not so just, as the latter may be caused in many ways. The EQ's of the pupils in the county school districts were higher in the third, fourth, and fifth grades than in the three upper grades. A similar condition was found in the Salt Lake



City school district in that the third and fourth grades were higher than in the seventh grade. The lowered quotients in the upper grades may be accounted for by a number of more or less related factors. The elementary school curriculum, methods of instruction, and educative school equipment and illustrative material used in the upper grades may be less well suited to the needs and interests of the pupils than in the lower grades; the teachers may be less well trained; the average daily attendance of the pupils may be poorer; or the social and recreational life outside of school hours may contribute less to good school work. Furthermore, the fact that the majority of the district supervisors work chiefly with the primary teachers and grades has influenced considerably the superior achievement in those grades as compared with that in the upper grades.

*Accomplishment ratio.*—Another measure often used in addition to the educational quotient of the pupils is their accomplishment ratio (AR). It is computed by dividing the educational quotient by the intelligence quotient. It is designed to determine the degree to which pupils' achievement is what it should be, taking into consideration their mental ability. In using this measure, pupils' achievement is compared with their capacity to learn, or rather with the norm for pupils possessing their capacity to learn. For example, a pupil with a mental age of 9 years, regardless of his chronological age, may be expected to achieve in his school subject an educational age of 9 years. If he has an educational age of 10 years, he is really accelerated in educational achievement and has an accomplishment ratio of  $\frac{10}{9}$ , or 111. (His accomplishment is 111 per cent of the normal for his mental age.) The AR's computed for the boys and the girls separately, as well as combined for the pupils in the different grades in the county school districts and the Salt Lake City school district, are given in column 6 of Table 10. To eliminate inaccuracies in computing the AR due to different methods used in calculating the EQ's and IQ's in the two tests given, the AR was also computed by dividing the average educational age (EA) by the average mental age (MA) of the pupils concerned. The resulting AR's for the most part are lower, and the differences between them for the county school districts and the Salt Lake City district are smaller than when the other method was used.

The use of the AR to compare ability and attainment has several serious limitations. Its probable error is high, environment and training of pupils influence factors used in its computation, and it assumes that general intelligence accounts for all the ability necessary to learn. This measure, however, is helpful to an ad-



ministrator in seeing that each of the pupils in the school system more nearly measures up to his true limits of ability; it contributes little of value in State surveys where different schools and systems are concerned.

*National intelligence tests.*—Tests were also given to obtain a measure of the mental ability of pupils in Utah. The national intelligence tests which were used for this purpose are planned to measure the "natural intelligence" or ability of pupils to learn. Regardless of variations in the scores which may be attributed to the effect of racial or environmental differences applied to a single school or to an entire State school system, they provide the most reliable and convenient means known for comparing pupils' ability to learn in one system with that of pupils in other systems that have been similarly measured. The tests are standardized for use in grades 3 to 8. The average "intelligence norms" for the United States should not be interpreted to be "standards" to which school children are to be brought by a process of training. The norms "represent fairly closely the averages that will be found in school systems generally when the results for cities, towns, villages, and rural communities are combined to afford a fair sampling of the public-school population of the Northern States." The results of the tests for the different grades in the county school districts and the Salt Lake City school district are given in the following table which is self-explanatory:

TABLE 11.—National intelligence test

## COUNTY SCHOOL DISTRICTS

Grade	Utah score	N. I. T. mental age	Chron. age	Intelligence quotient	
<i>Third grade:</i>					
Boys	Q <sub>1</sub> .....	28	7 3	8 8	188
	Q <sub>2</sub> .....	44	8 5	9 1	93
	Q <sub>3</sub> .....	61	9 6	9 7	99
	Mean.....	41	18 5	9 2	192
Girls	Q <sub>1</sub> .....	39	18 1	8 8	193
	Q <sub>2</sub> .....	54	9 0	9 0	100
	Q <sub>3</sub> .....	67	9 11	9 4	106
	Mean.....	54	9 0	9 1	99
Total	Q <sub>1</sub> .....	35	17 9	8 8	189
	Q <sub>2</sub> .....	48	8 6	9 0	94
	Q <sub>3</sub> .....	64	9 9	9 6	103
	Mean.....	48	8 7	9 2	94
U. S. grade norm.....	Av.....	56	9 2		
<i>Fourth grade:</i>					
Boys	Q <sub>1</sub> .....	47	8 7	9 11	87
	Q <sub>2</sub> .....	62	9 7	10 4	93
	Q <sub>3</sub> .....	82	10 11	11 0	100
	Mean.....	64	9 9	10 6	93
Girls	Q <sub>1</sub> .....	60	9 5	9 8	97
	Q <sub>2</sub> .....	77	10 7	10 1	104
	Q <sub>3</sub> .....	92	11 5	10 4	110
	Mean.....	77	10 7	10 1	105
Total	Q <sub>1</sub> .....	53	8 11	9 10	91
	Q <sub>2</sub> .....	69	10 0	10 2	98
	Q <sub>3</sub> .....	88	11 2	10 8	105
	Mean.....	70	10 1	10 3	98
U. S. grade norm.....	Av.....	76	10 6		

<sup>1</sup> Mental age estimated.



TABLE 11.—National intelligence test—Continued

## COUNTY SCHOOL DISTRICTS—Continued

Grade	Utah score	N. I. T. mental age	Chron. age	Intelligence quotient
<i>Fifth grade:</i>				
		<i>Yrs. Mos.</i>	<i>Yrs. Mos.</i>	
Boys.....	Q <sub>1</sub> ..... 65	9 10	10 10	91
	Q <sub>3</sub> ..... 83	10 11	11 3	97
	Q <sub>5</sub> ..... 100	11 11	12 0	99
	Mean..... 82	10 11	11 6	95
Girls.....	Q <sub>1</sub> ..... 77	10 7	10 7	100
	Q <sub>3</sub> ..... 86	11 1	11 2	99
	Q <sub>5</sub> ..... 106	12 3	11 6	107
	Mean..... 90	11 4	11 2	101
Total.....	Q <sub>1</sub> ..... 69	10 0	10 8	94
	Q <sub>3</sub> ..... 85	11 0	11 3	98
	Q <sub>5</sub> ..... 103	12 1	11 10	102
	Mean..... 85	11 0	11 4	97
U. S. grade norm.....	Av..... 96	11 8		
<i>Sixth grade:</i>				
Boys.....	Q <sub>1</sub> ..... 87	11 2	12 0	93
	Q <sub>3</sub> ..... 105	12 2	12 4	99
	Q <sub>5</sub> ..... 118	13 1	13 0	101
	Mean..... 103	12 1	12 8	95
Girls.....	Q <sub>1</sub> ..... 94	11 6	11 8	97
	Q <sub>3</sub> ..... 108	12 5	12 2	102
	Q <sub>5</sub> ..... 118	13 1	12 10	102
	Mean..... 106	12 3	12 4	99
Total.....	Q <sub>1</sub> ..... 90	11 4	11 10	96
	Q <sub>3</sub> ..... 107	12 4	12 3	101
	Q <sub>5</sub> ..... 119	13 2	12 11	102
	Mean..... 105	12 2	12 5	98
U. S. grade norm.....	Av..... 112	12 8		
<i>Seventh grade:</i>				
Boys.....	Q <sub>1</sub> ..... 90	11 4	13 3	86
	Q <sub>3</sub> ..... 105	12 2	14 2	86
	Q <sub>5</sub> ..... 120	13 3	14 9	90
	Mean..... 105	12 2	14 3	85
Girls.....	Q <sub>1</sub> ..... 97	11 9	12 9	92
	Q <sub>3</sub> ..... 110	12 7	13 10	91
	Q <sub>5</sub> ..... 125	13 7	14 4	95
	Mean..... 109	12 6	13 8	91
Total.....	Q <sub>1</sub> ..... 95	11 7	13 0	89
	Q <sub>3</sub> ..... 110	12 7	14 1	90
	Q <sub>5</sub> ..... 124	13 7	14 8	93
	Mean..... 109	12 6	14 0	89
U. S. grade norm.....	Av..... 131	14 2		
<i>Eighth grade:</i>				
Boys.....	Q <sub>1</sub> ..... 109	12 6	13 10	90
	Q <sub>3</sub> ..... 126	13 9	14 6	95
	Q <sub>5</sub> ..... 139	16 6	14 11	111
	Mean..... 124	13 6	14 7	93
Girls.....	Q <sub>1</sub> ..... 121	13 4	13 10	96
	Q <sub>3</sub> ..... 132	14 4	14 4	100
	Q <sub>5</sub> ..... 140	16 8	14 10	112
	Mean..... 133	14 6	14 10	98
Total.....	Q <sub>1</sub> ..... 116	13 0	13 10	94
	Q <sub>3</sub> ..... 129	14 0	14 4	98
	Q <sub>5</sub> ..... 139	16 6	14 11	111
	Mean..... 128	13 11	14 8	95
U. S. grade norm.....	Av..... 140	16 8		

## SALT LAKE CITY DISTRICT

<i>Third grade:</i>				
Boys.....	Q <sub>1</sub> ..... 54	9 0	8 9	101
	Q <sub>3</sub> ..... 65	9 10	9 0	109
	Q <sub>5</sub> ..... 80	10 9	9 9	111
	Mean..... 65	9 10	9 3	106
Girls.....	Q <sub>1</sub> ..... 51	8 10	8 9	101
	Q <sub>3</sub> ..... 61	9 5	9 0	105
	Q <sub>5</sub> ..... 77	10 7	9 4	104
	Mean..... 64	9 9	9 1	107
Total.....	Q <sub>1</sub> ..... 53	8 11	8 9	102
	Q <sub>3</sub> ..... 63	9 8	9 0	107
	Q <sub>5</sub> ..... 78	10 8	9 5	113
	Mean..... 65	9 10	9 2	107
U. S. grade norm.....	Av..... 56	9 2		

<sup>1</sup> Mental age estimated.



TABLE 11.—National intelligence test—Continued

## SALT LAKE CITY DISTRICT—Continued

Grade		Utah score	N. I. T. mental age	Chron. age	Intelligence quotient
<i>Fourth grade:</i>			<i>Yrs. Mos.</i>	<i>Yrs. Mos.</i>	
Boys <sup>a</sup>	Q <sub>1</sub> .....	72	10 3	9 8	106
	Q <sub>2</sub> .....	83	10 11	10 1	108
	Q <sub>3</sub> .....	98	11 10	10 8	111
	Mean.....	84	11 0	10 4	106
	Q <sub>4</sub> .....	75	10 6	9 7	110
Girls.....	Q <sub>1</sub> .....	89	11 3	9 11	114
	Q <sub>2</sub> .....	102	12 0	10 3	117
	Q <sub>3</sub> .....	102	12 0	10 3	117
	Mean.....	87	11 2	9 11	113
	Q <sub>4</sub> .....	73	10 4	9 8	107
Total.....	Q <sub>1</sub> .....	87	11 2	10 0	112
	Q <sub>2</sub> .....	99	11 10	10 6	113
	Q <sub>3</sub> .....	86	11 1	10 2	109
	Mean.....	86	11 1	10 2	109
	Q <sub>4</sub> .....	76	10 6		
<i>U. S. grade norm</i>					
<i>Seventh grade:</i>					
Boys.....	Q <sub>1</sub> .....	119	13 2	12 10	103
	Q <sub>2</sub> .....	135	15 6	13 2	108
	Q <sub>3</sub> .....	146	17 3	13 9	115
	Mean.....	130	14 1	13 4	106
	Q <sub>4</sub> .....	115	12 10	12 10	100
Girls.....	Q <sub>1</sub> .....	133	14 6	13 5	108
	Q <sub>2</sub> .....	143	17 0	13 11	122
	Q <sub>3</sub> .....	131	14 2	13 6	105
	Mean.....	115	12 11	12 10	101
	Q <sub>4</sub> .....	135	15 1	13 3	114
Total.....	Q <sub>1</sub> .....	145	17 2	13 11	123
	Q <sub>2</sub> .....	130	14 1	13 5	105
	Q <sub>3</sub> .....	131	14 2		
	Mean.....	131	14 2		
	Q <sub>4</sub> .....	131	14 2		
<i>U. S. grade norm</i>					

<sup>a</sup> Mental age estimated.

In the county school districts the medians for the different grades, and especially for the seventh grade, were below the norms. The average for the girls was consistently above that for the boys. In the Salt Lake City school district the medians for the different grades were above the norms. The boys averaged slightly higher than the girls. A decided dependence or relationship is apparent in columns 4 and 5, Table 10, between the intelligence quotients and the educational quotients in the different grades, the higher EQ's are associated with the higher IQ's, and vice versa. The mental ability of the average pupil in each of the school grades in the county school districts and the Salt Lake City school district has been plotted (-----) on the grade equivalent scale and included in the respective graphs in Figure 17.

It is a well-known fact that mental age scores as measured by group intelligence tests, such as the national intelligence tests, are considerably influenced by school attainment. Data concerning the educational achievement of the pupils in Utah as measured by the Stanford achievement tests were available. Consequently, in order to learn the amount of agreement between the scores obtained by the pupils in the two tests, the Pearson correlation coefficient between them was computed. The resulting correlation coefficient for the 842 elementary school pupils who took both tests is 0.87, with the probable error of  $\pm 0.009$ . Both of these figures indicate that the



two tests measured largely the same general abilities of the pupils. The correlation chart follows.

TABLE 12.—National intelligence test scores

	0-9	10-10	20-9	30-9	40-9	50-9	60-9	70-9	80-9	90-9
Standard Intelligence test scores										
90-9										
80-9										
70-9										
60-9									1	
50-9							1	5	1	1
40-9						3	10	24	4	19
30-9						16	44	48	45	64
20-9		1	2	1	3	19	21	11	52	24
10-9		1	2	11	6	1	3		2	
0-9	3	1	1		1					
Total	3	3	5	21	35	39	79	88	105	108
Percentage of total	0.36	0.36	0.59	2.49	4.16	4.63	9.38	10.45	12.47	12.83

	100-9	110-9	120-9	130-9	140-9	150-9	160-9	170-9	Total	Percentage of total
Standard Intelligence test scores										
90-9										
80-9										
70-9				3	5	2	2	2	4	0.48
60-9		4	6	12	4	7	1		12	1.43
50-9	6	26	34	22	7	1			35	4.16
40-9	50	45	25	8					98	11.64
30-9	47	23	4	2	1				158	18.77
20-9	3	2							222	26.37
10-9									194	23.04
0-9									89	10.57
Total	106	100	69	47	17	10	5	2	842	2.85
Percentage of total	12.59	11.88	8.19	5.58	2.2	1.19	0.59	0.24	100.00	71

The average national score is.....	93.062
The average Stanford score is.....	45.7007
Standard deviation national score.....	29.055
Standard deviation Stanford score.....	15.470
Correlation between the national and the Stanford scores is.....	.868434
Probable error.....	±.008729

Stanford score =  $2.68 + 0.462$  (national score).  
 National score =  $18.51 + 1.631$  (Stanford score).

*Mental and chronological ages—Fourth grades.*—A more detailed study than has been heretofore indicated was made of the mental and chronological ages of the pupils within each grade. Since it was fairly typical of the other grades, the data for the fourth grades in the county school districts and the Salt Lake City district were graphed in Figure 18.

The variation in the mental scores made by the fourth-grade pupils in the county school districts covered a wide range: 2 to 131 for the boys and 35 to 121 for the girls. In chronological ages the boys varied by a range of 7 years 3 months (8 years 9 months to 16 years); the girls by a range of 4 years (8 years 5 months to 12 years 5 months). In the Salt Lake City school district the variation in mental scores covered a range of 35 to 125 for the boys and of 50 to 128 for the girls. The chronological ages varied by a range of 4 years 5 months (9 years 2 months to 13 years 7 months) for the boys



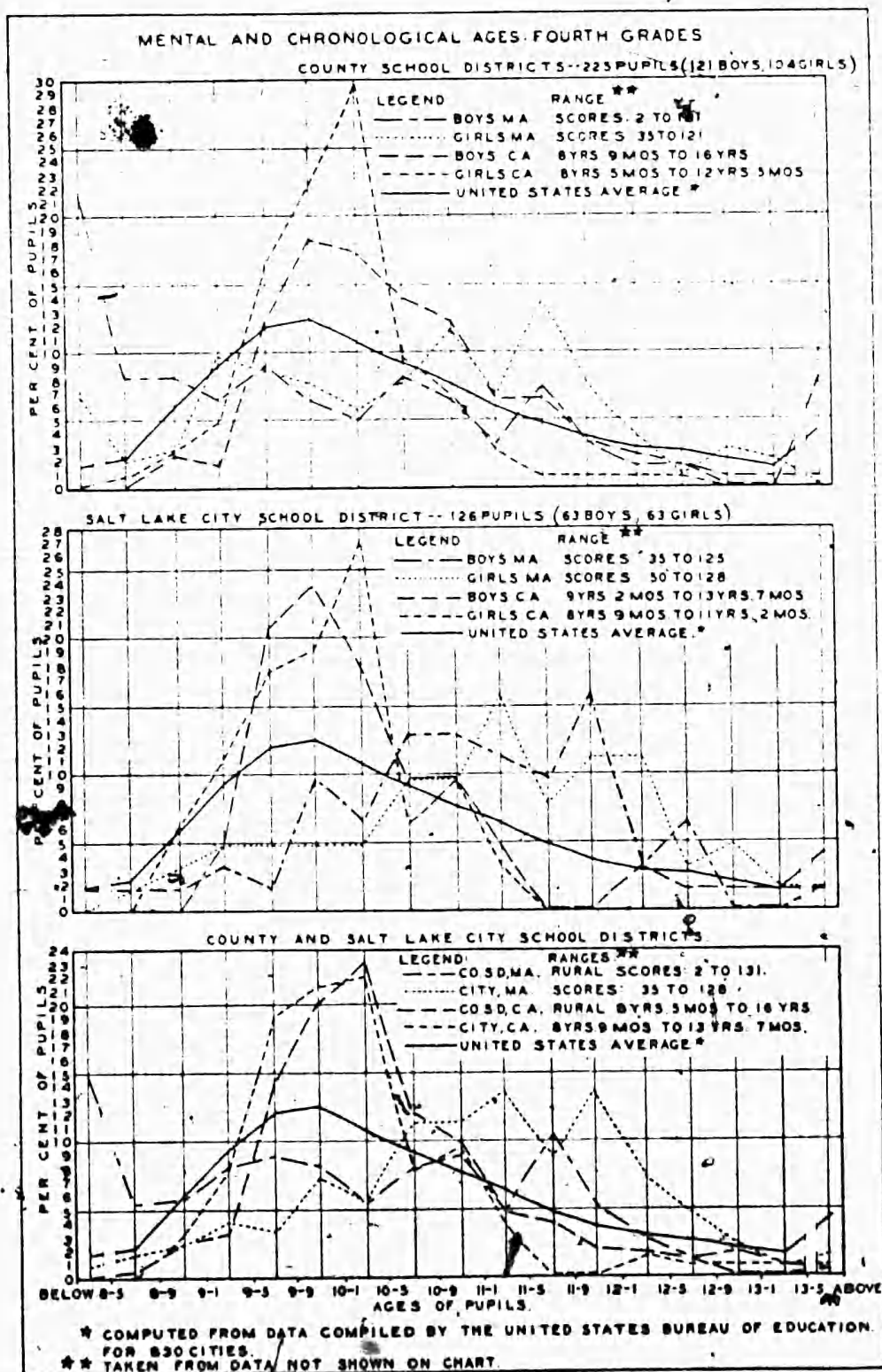


FIG. 18.—Mental and chronological ages: Fourth grades



and 2 years 5 months (8 years 9 months to 11 years 2 months) for the girls. In the third graph in Figure 18 the score for the boys and the girls are combined. The mental scores of the pupils in the fourth grades of the county school districts varied from 2 to 131; of the Salt Lake City district from 35 to 128. The chronological ages of pupils in the county school districts varied by a range of 7 years 7 months (8 years 5 months to 16 years); of the Salt Lake City district by a range of 4 years 10 months (8 years 9 months to 13 years 7 months). (For a detailed study of age-grade progress of pupils in Utah see the chapter on "School enrollment, attendance, and progress.")

The preceding data show unjustifiably wide ranges in each mental ability and chronological age among the pupils in the fourth grades. Such large spans in ability and age within a single grade indicate a degree of maladjustment between the school and the needs of its pupils. It is difficult, for example, to adapt equally well the school work for pupils ranging from  $8\frac{1}{2}$  to 16 years of age grouped together in the fourth grade. Such a condition is likely to do a double injustice—first to the younger pupils who make up the larger proportion of the class and, second, to the older pupils who should be placed in classes organized to afford the social, moral, intellectual, and physical environment better adapted to the pupils of more mature ages.

*Recommendations.*—1. The State should consider means for improving the educational performance—skill and information—in the different school subjects of its elementary pupils, and especially so in the upper grades. Factors to be considered in this improvement are revised elementary school curriculum, ample educative school equipment, teachers trained in better methods of instruction, and adequate supervision.

2. Steps should be taken immediately to reclassify the elementary pupils in the schools of the State so that the large spans in either mental or chronological ages may no longer exist within single grades.

3. The new research division in the State department of public instruction should encourage and coordinate the local school systems in their use of standardized achievement tests. Furthermore, in cooperation with the graduate departments in education of the higher institutions, it should give from time to time standardized diagnostic and achievement tests to measure the efficiency of instruction in the State and to assist further in planning and making effective such remedial measures as are shown to be necessary in this report and as are found to be needed in future practice.



## SUMMARY OF RECOMMENDATIONS

The custom is established in Utah of guiding classroom practice by means of the State course of study, supplementary bulletins, mimeographed letters and circulars, and in a small degree by classroom visitation and conferences. This custom can well be used as a foundation for such changes as will make the instruction of the pupils more effective and efficient.

The course of study needs revision. This may well be undertaken by specialists in the State department of public instruction in cooperation with specialists of theory and subject matter in the colleges of education in the State, with classroom teachers who are chosen because of outstanding skill in their respective fields and with the advice of experts in the field at large. It should place emphasis on those abilities it is desirable to develop in pupils and relatively less on facts to be learned. It should incorporate the results of modern research and scientific experimentation in education and should utilize pupils' interests and initiative. Additional helps in the way of well-organized mimeographed materials should be sent out by the administrative offices to teachers in service. Furthermore, these materials should be based upon sound educational principles and practice.

The length of the school day, particularly in the first two grades, should be increased and the amounts of time given to the different school subjects reallocated in order that they may be more nearly in keeping with the practice in progressive school systems. Standardized diagnostic and achievement tests should be given from time to time to measure the efficiency of instruction and to assist further in planning and making effective such remedial measures as are shown to be necessary in this report and as are found to be needed in future practice.



## Chapter V

### SECONDARY EDUCATION

Current thought in the United States holds that education suited to individual need should be provided in secondary schools for all children of approximately 12 to 18 years of age. Utah has accepted this thought, as is evidenced by (1) compulsory education legislation requiring full-time school attendance to the age of 16 and part-time attendance equivalent to four hours a week for a period of 20 weeks annually between the ages of 16 and 18; (2) a State policy encouraging the downward extension of secondary education to include grades 7 and 8, serving the age group 12 to 14; and (3) encouraging the broadening of the secondary program of studies to include courses designed to meet the needs of pupils looking to such fields of service as business, mechanic arts, agriculture, and home making, in addition to the fields of the so-called learned professions. The purposes of such a program of secondary education are:

1. To reach and enroll in secondary schools all children of secondary school age.
2. To give to individual pupils enrolled proper rates of progress in learning.
3. To secure for individual pupils enrolled desirable educational outcomes.
4. To provide and use efficiently the means for accomplishing the three preceding purposes.

This report therefore presents in order certain facts of enrollment, for the age group 12 to 18, of pupil progress, of educational outcomes, and of use of educational means. From these facts certain recommendations are offered, which, in the opinion of the survey staff, will result in further progress of the State toward attaining its purposes in secondary education.

In assembling the facts as a basis for evaluation of the secondary education program of the State the method of sampling has been used. For the purpose of securing a sample of the high schools of



the State for intensive study the following schools in the districts enumerated were selected:

School	District
Davis County	Davis.
Bountiful Junior High	Davis.
Granite	Granite.
Huntington Junior and Senior High	Emery.
Moroni Junior and Senior High	North Sanpete.
Spring City Junior High	North Sanpete.
North Cache	Cache.
North Summit Junior and Senior High	North Summit.
Parowan	North Summit.
Cedar City Junior High	Iron.
Price	Carbon.
Spanish Fork Junior and Senior High	Nebo.
East High	Salt Lake City.
West High	Salt Lake City.
Bryant Junior High	Salt Lake City.

There were 142 schools in the State offering some high-school work in 1925-26. Of these, 65 offered complete high-school programs; three offered three years of work; 22 offered two years of work; 52 offered one year of work above grade 8. Of the 65 schools offering complete high-school programs, the sample represents one school in six existing in the State.

In order that an opinion may be formed as to the reliability of the sample used, relevant data, assembled from tables of this report and from statistical reports available in the State department of education, are here shown:

TABLE 1.—Items indicating the reliability of the sample of high schools used for intensive study

Items	Sample	Other schools
1. Per pupil value of high-school property computed from State financial statistics for 1923-24	\$316	\$334
2. Per cent of teaching time given to the four academic fields (English, mathematics, science, history, and social science), measured by the Iowa high-school content examination	50.2	41 50.3 20
3. Per cent of pupil time given to the academic fields of 2 above (see table, p. 188)	57.1	54.1 41
4. Average enrollment	370	203
5. Average experience of teachers in years and months (data from reports to high-school inspector, 1925-26)	6-0	38 5-6
6. Per cent of teachers holding degrees (data from reports to high-school inspector, 1925-26)	72.4	38 69.4
7. Cost per teaching hour of instruction (salary data from reports to high-school inspector, 1925-26. See also table, p. 187)	\$2.27	38 \$2.19
8. Cost per pupil hour of instruction (see references under 7)	\$0.077	20 \$0.087

<sup>1</sup> All schools.

<sup>1</sup> Other county schools.

From the eight factors listed above it is apparent that on the assumption that expenditures, curriculum emphasis, size of school, and training and experience of teachers are significant in determining educational outcomes, the sample used as a basis for evaluation is favorable to the State.

### ENROLLMENT OF PUPILS

Utah has succeeded in enrolling in school a higher percentage of the population of secondary-school age than any other State. The achievement in this direction is notable for the age group 16-18. (See Table 6, p. 87, school attendance of population 5-20 years of age, 1910 and 1920, in the United States and in Utah, and graph following.)

### PROGRESS OF PUPILS

As measured by the per cent promoted in the secondary grades a high rate of grade progress is maintained. (See Table 11, p. 90, per cent promoted on enrollment at close of school year.) Table 15, p. 94, per cent of pupils under age, normal age, and over age by grades in Utah and 830 city school systems, shows, however, from grade to grade through elementary and high school a comparative decrease in the percentage of pupils under age and for over-age children a comparative percentage increase. For the secondary-school grades as a whole the percentage of pupils under age for grade is significantly lower and the percentage over age is significantly higher. Considering the age-grade and survival data as a whole there is a tendency to promote on the basis of time spent in school which is rather unusual.

The secondary school aiming at service to the age groups 12-18 is fundamentally interested in the rate at which the elementary school brings children to the completion of grade 6. Tables 2 and 3 show the grade location of children 12-18 years of age in Utah schools and in 830 cities. Utah is clearly bringing a higher percentage of these age groups to the completion of grade 6 than is common and is thus making it possible for the secondary school to reach them. While a higher percentage of each age group is brought to completion of grade 6 the tendency toward more rapid grade progress is reversed for 12-year olds at grade 7, for 13-year olds at grade 8, for 14-year olds at grade 9, for 15-year olds at grade 9, for 16-year olds at grade 10, and for 17-year olds at grade 8. On the whole, 12, 13, and 14 year old children have reached a higher grade level than is common, but 15, 16, and 17 year old children are at a lower grade level than is common. This low-average progress is undoubtedly due to the greater retention in school of the upper-age



groups. Normally those of these age groups who drop out of school are the slow-progress pupils.

TABLE 2.—Per cent of pupils 12, 13, 14, etc., years of age enrolled in elementary and secondary school grades in the State

Grade	Age					
	12	13	14	15	16	17
Under seventh.....	53.5	24.8	9.4	3.2	1.2	0.4
Seventh.....	37.8	33.7	18.3	7.7	2.7	.8
Eighth.....	8.0	33.0	32.9	21.2	8.2	3.8
Ninth.....	.7	8.2	33.3	37.3	22.5	11.0
Tenth.....		3	5.0	25.3	33.7	21.4
Eleventh.....			.2	4.8	26.7	34.3
Twelfth.....				.2	5.0	28.3

TABLE 3.—Per cent of pupils 12, 13, 14, etc., years of age enrolled in elementary and secondary school grades in 830 cities

Grade	Age					
	12	13	14	15	16	17
Below seventh.....	60.1	34.6	21.0	9.4	2.8	0.7
Seventh.....	28.6	26.9	17.6	9.5	3.5	1.0
Eighth.....	0.7	26.4	25.9	17.2	8.0	2.4
Ninth.....	1.5	10.4	27.6	30.0	20.4	9.9
Tenth.....	.1	1.6	6.2	24.0	28.9	20.2
Eleventh.....		.1	1.3	8.0	26.1	32.4
Twelfth.....			.1	1.3	10.3	33.4

A further indication of progress for different groups of high schools of the State is here presented through failure data.

In this survey an attempt was made to collect failure data for the class entering the first semester of grade 9 for the first time in the school year 1923. Usable returns were secured for 12 high schools which are shown in Table 4 below.

A study by Cowles (see report of the high-school inspector of Utah, 1923-24); on failure in 35 rural high schools of Utah for 47,578 subject enrollments, shows a total of 2,678 subject failures. This is a percentage rate of 5.6. The data are for the school year 1921-22.

The foregoing study used data for the school year 1921-22. The report is concerned with subject failures and lists a failure without regard to the credit value of the course failed. Students who continued a course to its end and did not receive credit or were dropped because of poor work or withdrew because of inability to carry the work were reported as failures.

Table 4 takes into account the credit value of courses attempted and failed and is based on the class entering grade 9 for the first time at the beginning of the first semester of the school year 1922-23.

TABLE 4.—*Failure in Utah high schools, with comparisons for the United States*

School group	Units of credit attempted and failed, by semesters									
	Semester 2					Semester 4				
	At-tempted	Fail-ures	Per-cent of fail-ures	At-tempted	Fail-ures	Per-cent of fail-ures	At-tempted	Fail-ures	Per-cent of fail-ures	All semesters
Small (four schools) (average enrollment, 108; range, 119-206)	364.0	39.5	10.8	278.5	30.5	10.9	175.9	19.0	10.8	7.8
Large (eight schools) (average enrollment, 438; range, 292-682)	1,974.25	353.25	17.9	2,011.0	317.25	15.7	1,536.75	185.75	12.0	5.1
										6,029.25
										914.75
										10.5
										13.8

*Failure by size of school, United States, for all years combined*

Size of school	Number of schools	Total enrollment	Total pupil failures	Total subject failures	Per cent of pupils failing	Number of subject failures per pupil	Per cent of subjects failed (based on a normal load of 4 subjects per pupil)
Under 300	105	22,004	4,075	6,404	18.5	1.6	7.2
300-599	80	36,114	6,944	10,666	19.1	1.6	8.5
600-999	59	43,780	9,434	14,358	21.5	1.5	8.2
1,000 and over	54	132,271	38,670	63,613	29.2	1.6	12.2
Total	304	234,169	59,083	95,035	25.2	1.6	11.4



It therefore includes failures due to withdrawal and constitutes a record for the class covering the four-year period 1922-23 to 1925-26.

Since practically all courses offered in Utah high schools have a unit-credit value, subject bases are practically the same. The fact that the failure rate shown by Table 4 is higher than that found by Cowles is probably primarily due to two facts: (1) Cowles' report presented data for grades 9, 10, 11, and 12 for a single year and did not cover withdrawal for any purpose other than failure. Undoubtedly a considerable amount of withdrawal for purposes of transfer to another school is covered by Table 4 and the showing is more heavily weighted by the record for the first four semesters where failure is high. (2) The schools represented in Table 4 are, on the whole, considerably above the average in size for the State, and the failure rate is definitely higher in the larger schools. The failure rate for Utah as shown by Table 4 is approximately that for the United States as a whole, as based on unpublished data available in the United States Bureau of Education for 304 high schools representing all States and enrolling 234,169 pupils.

The indications are that the failure rate in Utah is slightly above this average, since a general tendency to carry an average of more than four full-time courses exists. An increase in the number of subjects carried for pupils would reduce the percentages of subjects failed, as shown by the last column of Table 4. There is evidently nothing abnormal in the failure rate in Utah high schools. With a higher percentage of the total population enrolled and a higher rate of survival one would expect a higher failure rate if comparable standards of achievement are set. The fact that the smaller schools in Utah show a lower failure rate at all grade levels prior to semester 8 indicates that standards of accomplishment are lower in the small schools. There is a considerable amount of retardation due to failure in the first two years, which argues a need for adjustment of the work of the high schools to the needs of entrants.

A final measure of progress is presented in the results of testing. (See 181 and 184.) These data show that pupils in the grades tested average older grade for grade, indicating that the rate of grade progress is lower than for the United States as a whole. As evidenced by a progressive educational retardation from grade to grade actual educational progress is slow.

#### PERSISTENCE IN HIGH SCHOOLS

Data presented in Chapter III show a higher percentage of children of normal age for the late high-school years enrolled in school than is true for any other State. The effect of compulsory legislation in retaining these pupils in school is obvious. The fact that



percentages enrolled for the upper ages are comparatively higher than for the lower ages, together with progress data showing a higher percentage of children reaching secondary school grades, is unmistakable evidence that the schools are retaining an unusually high percentage of children.

Data from 12 schools giving the number of pupils entering in 1922-23 who dropped out at the end of each successive semester to 1926 show a survival rate of 42.9 per cent. There is no comparable data available for other school systems. The chief significance of the data lies in the showing of the places of greatest elimination in the schools. The highest mortality rate is between grades 9 and 10. The schools lose 22.1 per cent of their enrollment between these grades. A second significant loss occurs at the end of grade 10, amounting to 16 per cent of those entering. A study of age distributions from age-grade tables shows that this is due in part at least to overage pupils who drop out when they reach the compulsory age limits. The failure rates in grades 9 and 10 indicate a lack of adjustment of the schools to pupil needs during the first two years.

TABLE 5.—*Survival by semesters, Utah high schools (class entering grade 9 in 1922-23)*

School	Numbers entering and surviving to end of specified semester									Rate, entrance to end of semester 8
	Entering	1	2	3	4	5	6	7	8	
North Cache.....	114		100	73	68	51	49	44	38	33.8
Moroni.....	36		36	35	35	24	24	22	22	61.1
Price.....	105		80	95	84	68	62	46	44	40.0
Spanish Fork.....	129		126	108	106	85	84	57	55	42.0
Huntington.....	42		26	20	18	14	13	10	10	23.0
Davis.....	174								91	62.0
North Sanpete.....	44		43	24	23	15	15	14	14	31.8
Nephi.....	77		77	68	68	57	57	45	45	58.4
Payson.....	86		86	62	62	50	50	46	46	53.4
Bear River.....	121			109		94		61	61	50.4
South Summit.....	45		44	27	26	22	22	11	10	22.2
Beaver.....	30		28	21	19	14	14	13	11	36.7
Total.....	1,003		646	642	509	494	390	369	447	44.5
Less Davis.....	174								91	
	829								356	
Survival rate.....			77.9	77.4	67.4	59.4	47.0	44.5		42.9
Small schools.....	(Moroni, Huntington, and South Summit)									34.0
Large schools.....										47.0

### EDUCATIONAL OUTCOMES

*Standard tests.*—The educational outcomes as indicated by standard tests of achievement and mental ability are shown here for nine 4-year or senior high schools and for seven junior high schools of the county school districts. Test results are presented also for two senior and one junior high schools of Salt Lake City. The tests



used, the grades in which they were used, and the number of schools and pupils tested are recorded below:

TABLE 6.—Showing for each test used the number of children by grade and the number of schools tested

Test	Number of schools	Grades	Number of children
1. Terman group test of mental ability, Form A.....	12	9, 10, 11, 12	943
2. Thorndike-McCall reading scale, Form 8.....	11	9, 10, 11, 12	892
3. Stanford achievement test, advanced examination, Form A.....	18	7, 8, 9	1, 126
4. Iowa high-school content examination, Form B.....	8	12	161
Total.....			3, 122

### STANFORD ACHIEVEMENT TEST

The Stanford achievement test was used as a measure of general educational status of grades 7, 8, and 9. Of the schools tested seven are 4-year or senior high schools, seven are junior high schools, and five are 8-year elementary schools. The Stanford achievement test is a battery of nine tests covering the field of the elementary school curriculum. The test yields subject and composite scores which are translated into subject and educational age equivalents. Norms are provided for grade and for age. The test has been standardized on the basis of results from representative schools in 10 States. Results of this test are shown in Table 7, Figures 19 and 20, and the text which accompanies the table.

### STANFORD ACHIEVEMENT TEST

TABLE 7.—Average chronological, subject, and educational ages by grade and for certain school groupings

Grade and school group	Number cases	Subject ages						Educational	Chronological
		Reading	Arithmetic	Nature study and science	History and literature	Language usage	Spelling		
All county district schools:									
Grade 7.....	282	12-6	12-8	12-9	12-7	12-9	12-8	12-9	13-7
Grade 8.....	317	13-1	12-9	12-8	13-6	13-0	12-10	13-4	14-7
Grade 9.....	325	14-3	14-4	14-3	14-3	14-7	13-8	14-4	15-4
Salt Lake City:									
Grade 7.....	193	14-5	15-2	14-8	13-7	14-4	14-3	14-6	13-5
Grade 9.....	162	16-6	16-1	15-11	16-3	16-5	15-10	16-3	15-2
All county district junior high schools:									
Grade 7.....	181	12-7	12-11	12-10	12-7	12-11	12-9	12-10	13-5
Grade 8.....	237	13-1	13-4	12-11	13-3	13-6	13-4	13-3	14-7
All county district elementary schools:									
Grade 7.....	101	12-3	12-7	12-8	12-6	12-6	12-6	12-7	13-10
Grade 8.....	80	13-5	14-2	13-3	12-10	13-5	13-10	13-10	14-7

Table 7 shows the average chronological, educational, and subject ages for individual grades grouped as indicated in the table. Figures 19 and 20 show graphically the relative standing of the grades and their position with reference to their norms. By reference to

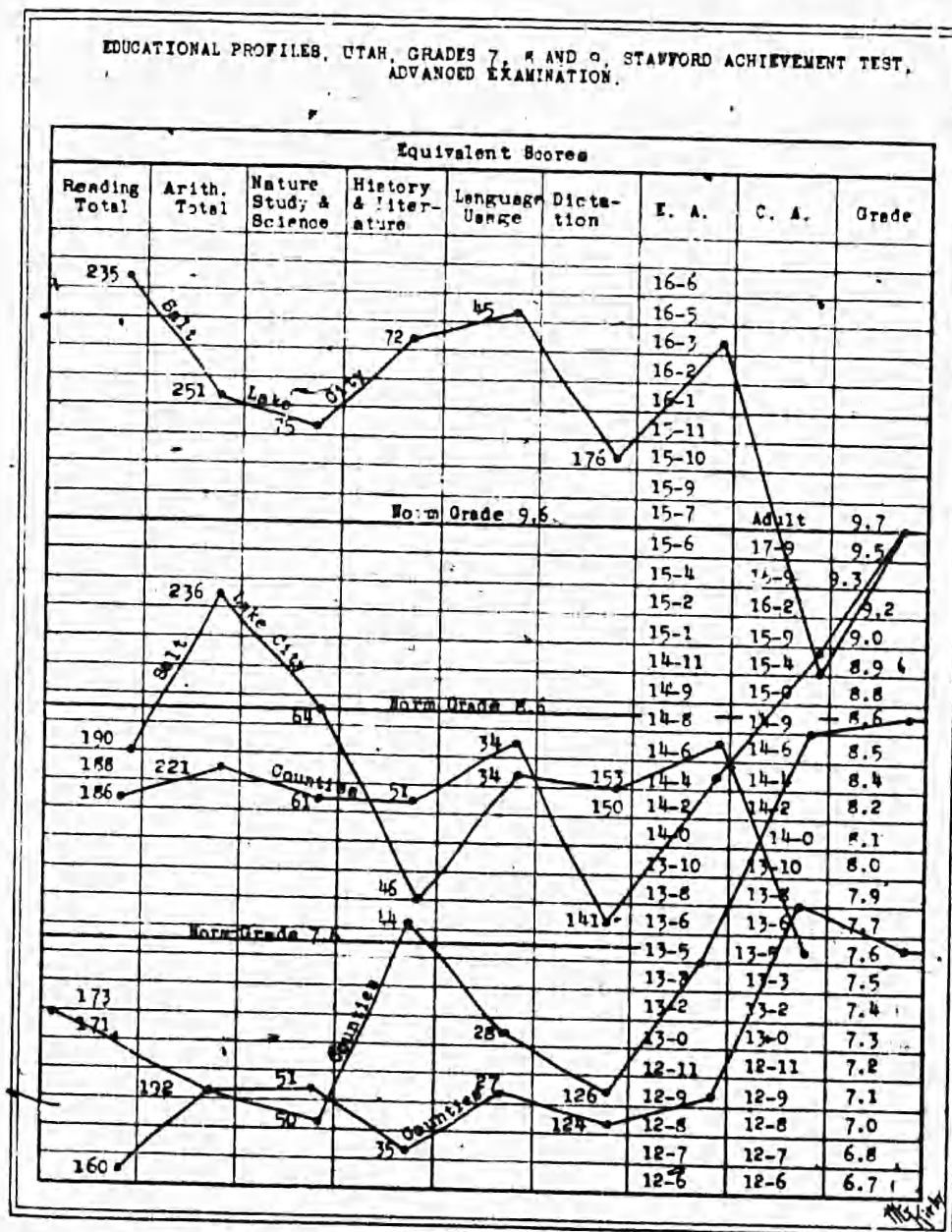


FIG. 19.—Educational profiles, grades 7, 8, and 9; Stanford achievement test

Figure 19 it is seen that the average chronological age of seventh-grade children in the county schools is 13 years and 7 months; the average educational age is 12 years and 9 months; the average spelling age is 12 years and 8 months; the average language usage age is 12 years and 9 months; the average history and literature age is 12 years and 7 months; the average nature study and science age is 12 years and 9 months; the average arithmetic age is 12 years and 9 months; and the average reading age is 12 years and 6 months. These pupils are



in the sixth month of grade 7 and should have educational and subject ages of 13 years and 5 months. According to educational age and grade they are 6 months retarded. They are actually 13 years and 7 months old and according to chronological age are 9 months retarded. The other curves of the plate should be read similarly. The numbers in the subject column are the actual subject scores

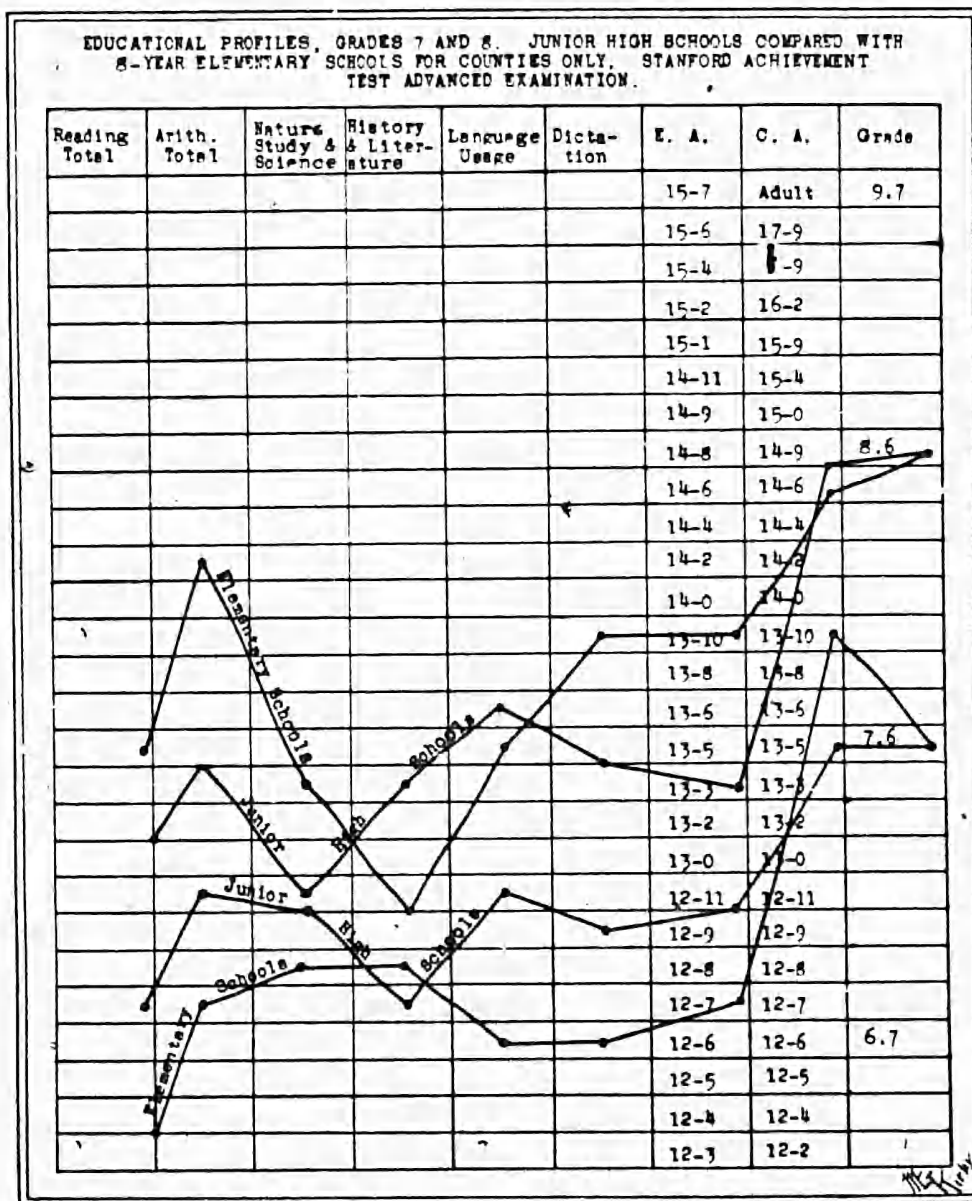


FIG. 20.—Educational profiles, grades 7 and 8; Stanford achievement test

which have the age equivalent indicated in the column, E. A. (educational age). The complete showing for the county schools is that according to grade placement grade 7 is 6 months retarded, grade 8 is 1 year retarded, and grade 9 is 1 year and 2 months retarded.

In Salt Lake City grade 7 is 8 months accelerated according to grade and 1 year and 1 month accelerated according to age. Pupils

of grade 9 are above the norm for grade 10 and according to age are 11 months accelerated.

The subject weaknesses of the various grades are obvious at a glance. Grade 7 of the counties is apparently well balanced, the subject ages falling within 3 months of either side of the norm for the first month of grade 7. Grade 8 shows a comparatively high rating on history and literature and grade 9 shows a marked deficiency in spelling.

In Salt Lake City both seventh and eighth grades are decidedly above the norm. Grade 7 is comparatively high in reading, arithmetic, and nature study and science. The grade weakness is in history and literature, although it is above the norm in that subject. Little significance can be attached to the variation in subject ages in grade 9, since the scores are at a level where growth in abilities measured by the Stanford achievement test practically ceases. The general summary statement warranted is that in the county schools, grades 7 to 9, inclusive, are progressively retarded educationally, while Salt Lake City shows a decided educational acceleration.

Figure 20 shows the comparative educational development of grades 7 and 8 in elementary schools of the counties and in junior high schools. Grade 7 in the junior high schools is superior to grade 7 in the elementary schools except in history and literature. The educational age of grade 7 for the junior high schools is 3 months above that of the elementary schools and the children are 5 months younger chronologically. In grade 8 the elementary schools show superiority in all subjects except history and literature and language usage. There is a difference of 7 months of educational age in favor of the elementary schools. The children are practically of the same age. The comparatively small number of children tested in the elementary schools after separation from the junior high schools renders the results unreliable. Furthermore, the junior high schools of the county districts are in a state of transition, and aside from departmentalization differ little from the traditional seventh and eighth grades of the elementary schools. Exceptions to this statement among the junior high schools tested in the county districts are so rare that any pooling of junior high schools covers any differences that a fully developed junior high school might show.

#### IOWA HIGH-SCHOOL CONTENT EXAMINATION

Table 7 shows the results of the Iowa high-school content examination. This test is a battery of four tests covering the fields of English, mathematics, science, and history and social studies. The tabulation gives the frequency distribution of scores for the counties combined and for two senior high schools of Salt Lake City combined. Percentile scores are shown at the right. The table should



be read as follows: One hundred per cent of pupils of the county schools earn a score of 289 or less; 100 per cent of pupils of Salt Lake City earn a score of 329 or less, etc.

The results show that the seniors of the county schools are decidedly below the norm, which is based on 1,550 seniors of Iowa high schools. Salt Lake City is decidedly above the State norm for Iowa. It will be noted that 47.7 per cent of Iowa seniors fall below the interval (150-159) that includes the norm, while 69.4 per cent of Utah seniors and 22 per cent of Salt Lake City seniors fall below this interval. The results of the Iowa test by individual subjects for individual county schools are shown in Table 8.

TABLE 8.—Comparative distribution of scores for Salt Lake City and county districts of the State of Utah (Iowa high-school content examination)

Score	Frequency			Subtotals			Percentile scores		
	Iowa	Salt Lake City	County districts	Iowa	Salt Lake City	County districts	Iowa	Salt Lake City	County districts
330-339	0	2		186			100.0		
320-329	1			1,550	184		100.0		
310-319	4	3		1,549	184			98.9	
300-309	4			1,545	181			98.9	
290-299	3	3		1,541	181			97.2	
280-289	9	4	1	1,538	178	275	99.2	97.2	100.0
270-279	8	7	1	1,529	174	274		93.5	99.6
260-269	18	9	3	1,521	167	273		89.8	99.2
250-259	16	8		1,503	158	270		84.9	98.2
240-249	30	10	4	1,487	150	270		80.6	98.2
230-239	32	6	6	1,457	140	266		78.2	96.7
220-229	53	9	3	1,425	134	260	91.9	72.0	96.5
210-219	51	9	3	1,372	125	257		67.2	93.4
200-209	71	10	9	1,321	116	254		62.3	92.3
190-199	78	17	11	1,250	106	245	8.6	56.9	89.1
180-189	77	23	10	1,172	89	234		47.9	85.1
170-179	107	13	18	1,095	66	224	70.6	35.4	81.2
160-169	131	12	15	988	53	206	63.7	28.5	74.9
150-159	117	12	21	857	41	191	55.2	22.0	69.4
140-149	141	11	20	740	20	170	47.7	15.6	61.8
130-139	152	4	21	599	18	150	38.5	9.6	54.5
120-129	109	8	21	449	14	129		7.4	46.9
110-119	93	2	20	338	6	108	21.1	3.2	39.2
100-109	66	3	21	245	4	88		2.1	32.0
90-99	80	0	21	179	1	67	10.1	.5	24.3
80-89	40	0	23	99	1	46	6.3	.5	16.7
70-79	34	0	12	59	1	23	3.8	.5	8.3
60-69	16	0	5	25	1	11	1.6	.5	4.0
50-59	8	0	4	9	1	6	.5	.5	2.1
40-49	1	1	2	1	1	2		.5	.7

TABLE 9.—Mean subject scores for individual county schools, Iowa high-school content examination

School	Number of cases	Median score					Mean score
		English	Mathematics	Science	History and social science	Composite	
1	39	36.0	22.5	39.5	44.5	146.7	
2	50	44.0	25.0	27.0	40.0	150.8	
3	9	16.5	10.5	19.5	25.5	95.8	
4	28	18.0	15.0	29.0	33.0	106.1	
5	41	38.0	22.0	28.0	39.5	136.6	
6	28	21.0	19.0	27.0	31.0	104.7	
7							
8	30	41.0	25.0	38.0	47.0	158.2	
9	50	40.0	18.0	41.0	45.0	152.6	
Norm		46.3	31.8	25.9	49.5	157.4	

Considering the median subject scores on the Iowa high-school content examination, all schools fall below the norm for English and mathematics, 7 of the 8 schools are above the norm for science, and all schools are below the norm for history and the social studies; 7 of the 8 schools fall below the norm for the 30 percentile on mathematics, 4 are below this percentile norm for English, and 4 are below it for history and the social studies.

Obviously the schools are not securing standard results in any field except science, and the outstanding weakness is in mathematics.

### THORNDIKE McCALL READING SCALE

Table 10 shows the results of the Thorndike McCall reading scale. Reading ages are consistently below chronological ages, as evidenced by reading quotients of less than 100. Retardation in reading is progressive, as is shown by lower reading quotients from grade to grade.

For the State as a whole the mean reading age is 176 months. The mean chronological age is 214 months, showing a retardation of 38 months, or 3 years and 2 months.

TABLE 10.—Mean chronological and reading ages, reading quotients, and T. scores (Thorndike McCall reading scale, Utah high schools, grades 9-12)

Schools (county district)	Grade 9				Grade 10				Grade 11				Grade 12			
	Mean				Mean				Mean				Mean			
	C. A.	R. A.	R. Q.	T. score	C. A.	R. A.	R. Q.	T. score	C. A.	R. A.	R. Q.	T. score	C. A.	R. A.	R. Q.	T. score
1.....	184	170	92.57	2	194	171	88	58.8	205	180	90	63	220	181	82	61.2
2.....	186	179	96.60	5	194	171	88	58.8	207	177	85	59.9	215	181	84	61.1
3.....	188	161	85.54	3	196	170	86	57.4	200	172	86	58	221	177	77	60.4
4.....					191	148	78.4	65.0					220	201	91	60.0
5.....					194	175	90.0	58.8	207	172	83	57.8	214	177	82	58.2
6.....					196	187	95	63.1	205	190	95	66.6	221	191	86	64.8
7.....	191	162	83.54	4	200	174	87	58.8								
8.....					196	187	95	63.1	205	190	95	66.6	221	191	86	64.8
9.....					196	170	86	57.4	200	172	86	58	221	177	77	60.4
Salt Lake City:																
1.....									204	201	98	56.4				
2.....									205	185	90	67.0				

All schools, all grades combined—Mean R. A. = 176 months.  
Mean C. A. = 214 months.  
Mean R. Q. = 82.2.

Figures 21-24 show the results of the Terman group test of mental ability for all sample schools combined as indicated by headings. Figure 21 shows for grade 9 percentile scores and mental age equivalents as based on the Terman group test of mental ability in comparison with the Terman norm; the distribution of chronological ages for the pupils tested and the distribution of chronological ages in 830 cities of the United States. From the



showing of the distribution curves ninth-grade children are younger mentally than is normal for the grade and they are older chronologically than is normal, if the distribution of ages in 830 cities of over 2,500 total population is accepted as the norm. The median child has a mental age 6 months below the Terman norm and is 5 months younger mentally than chronologically. The median child in Utah is also 3 months older than in the 830 cities. The successive Figures 21-24 show a progressive mental retardation which amounts to 3 years in grade 12 considered with reference to chronological age and 17 months considered with reference to the Terman norm for the grade.

Figure 24 shows comparative distributions for county schools of the State and for Salt Lake City. As in the Stanford achievement test and the Iowa high-school content examination, Salt Lake City is above the norms, and the schools outside Salt Lake City are below the norms.

The form of the distribution of ability is of more significance than the size of the median score for purposes of school administration. The Terman norms are based largely on city school systems. The differences in environment, in and out of school, undoubtedly affect the ability to score on any available group test of mental ability. Whether Utah children show higher or lower central tendencies of ability to score on the Terman test than would be shown by a standard group influenced by the same environment no one can say.

If the curve of distribution of scores of Utah children, all grades combined, be tested for fit to a normal distribution curve it will be found to approximate the normal curve very closely. (See Figure 25.) The cases upon which the Terman norms are based give a distribution which is skewed to the right by 5.8 percentile ranks at the first quartile and 3.1 percentile ranks at the third quartile. This reflects the effect of a selective factor operating in high schools which tends to eliminate the less able pupils. The lack of similar skewing of the curve for Utah children reflects the condition shown by enrollment and failure data. Utah children are much less highly selected. It is probable that except in extreme cases mental ability is not the factor which prompts elimination from the high schools of the State. The curve for Salt Lake City, however, indicates that rigorous selection on the basis of mental ability is practiced. The lower percentiles of ability are not normally represented. This causes a rapid rise of the curve through the lower percentiles, and a flattening out through the middle 50 per cent range.

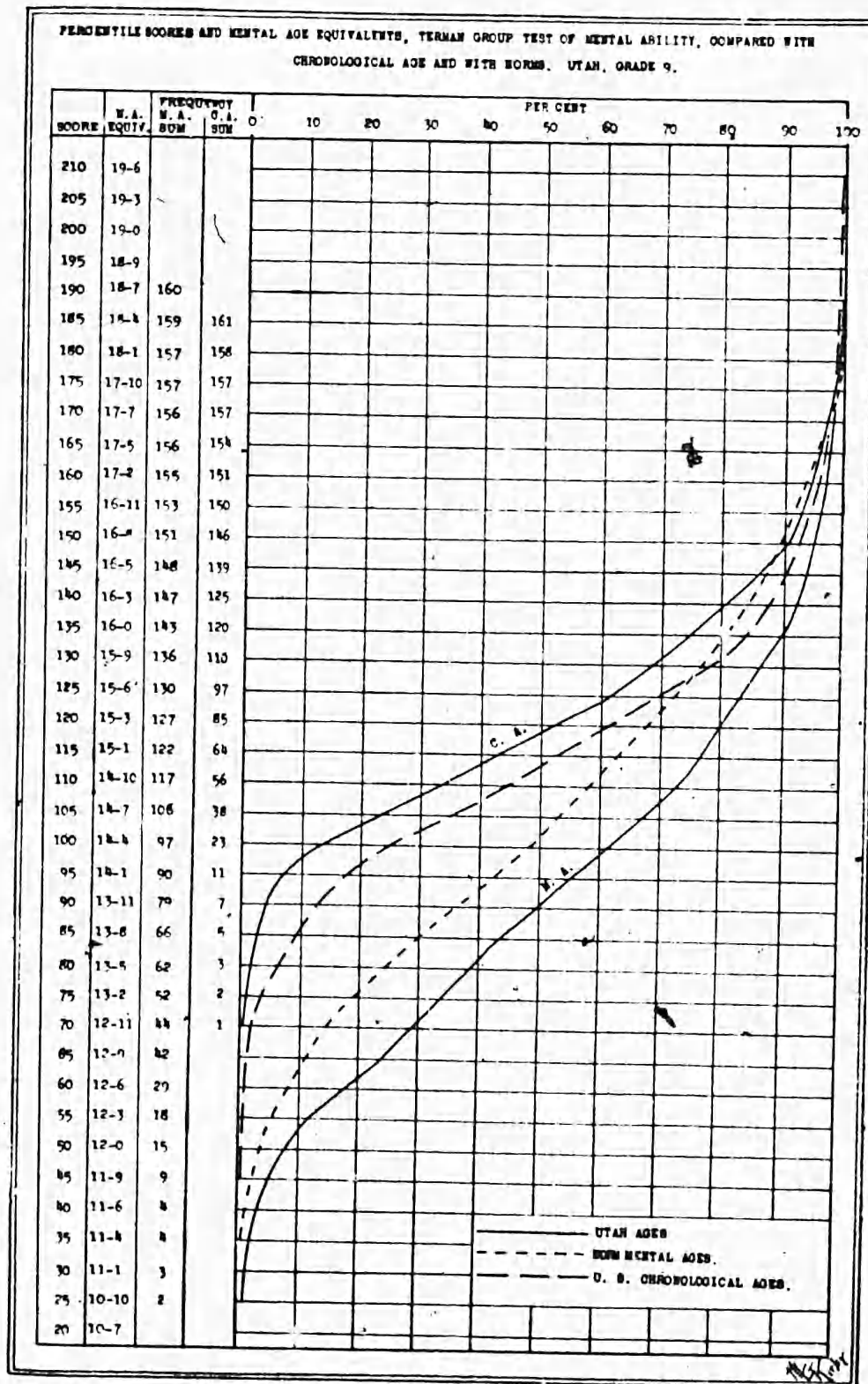


FIG. 21.—Percentile scores and mental age equivalents, Terman group test of mental ability, grade 9



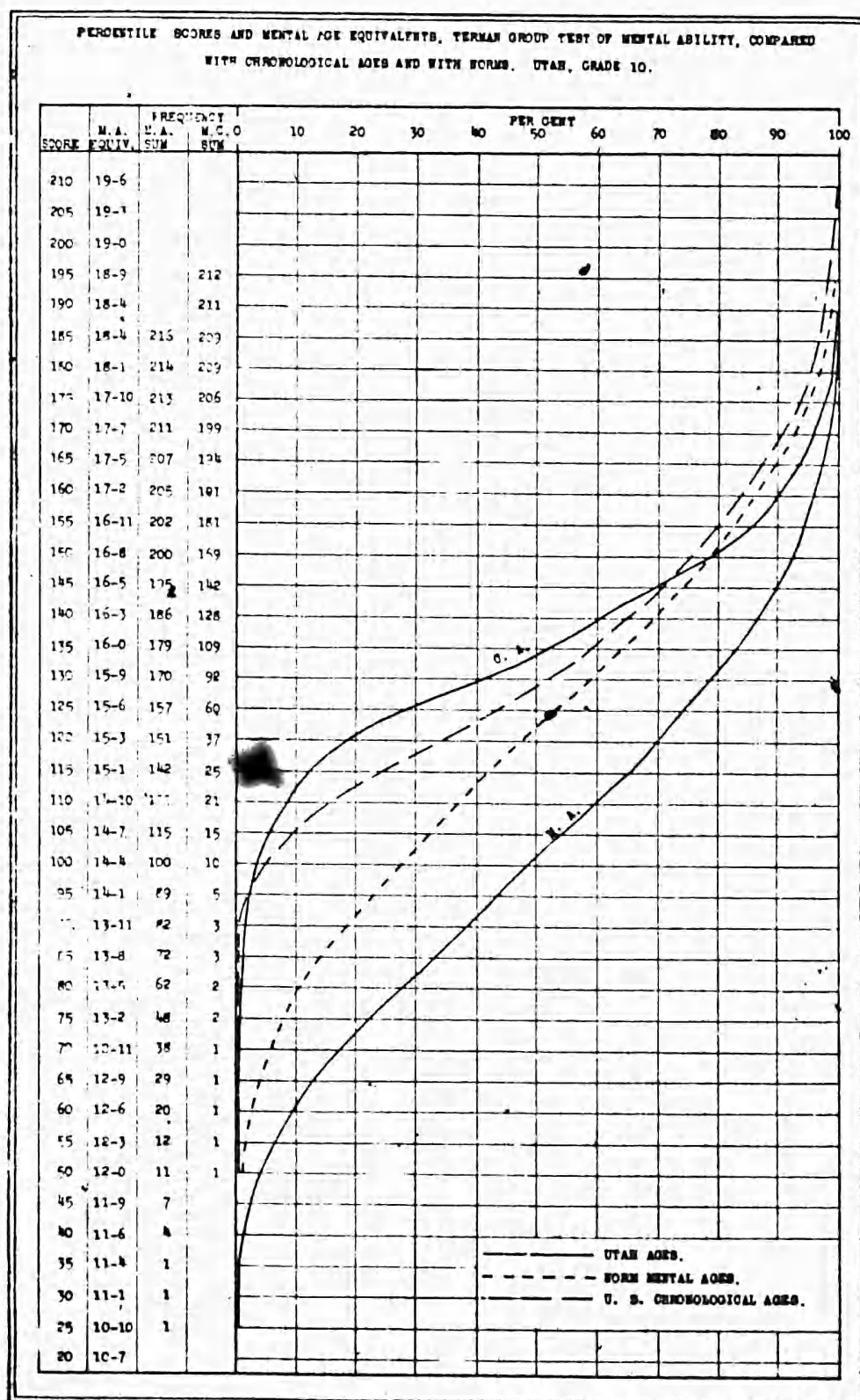


FIG. 22.—Percentile scores and mental age equivalents, Terman group tests of mental ability, grade 10

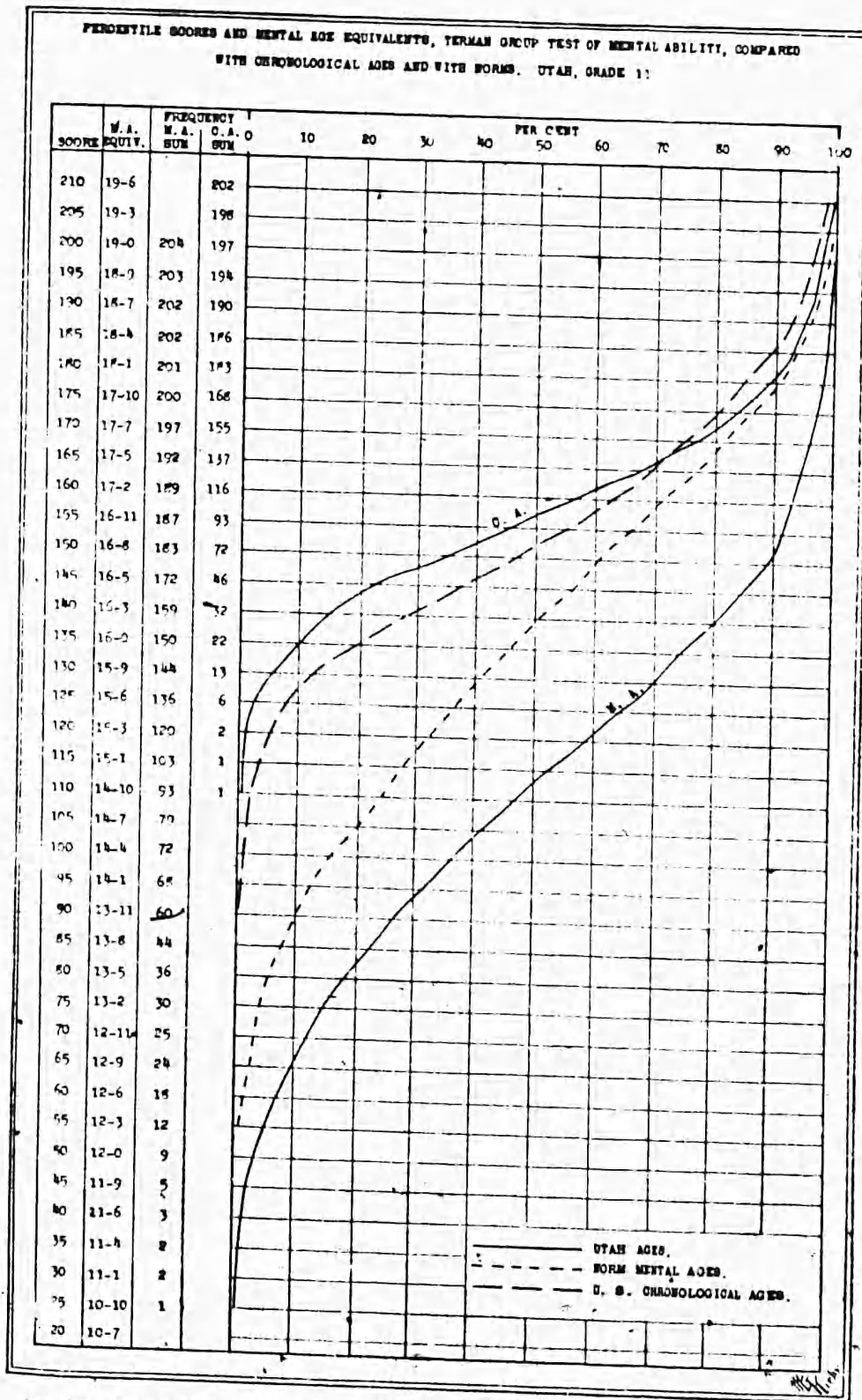


FIG. 23.—Percentile scores and mental age equivalents, Terman group test, grade 11



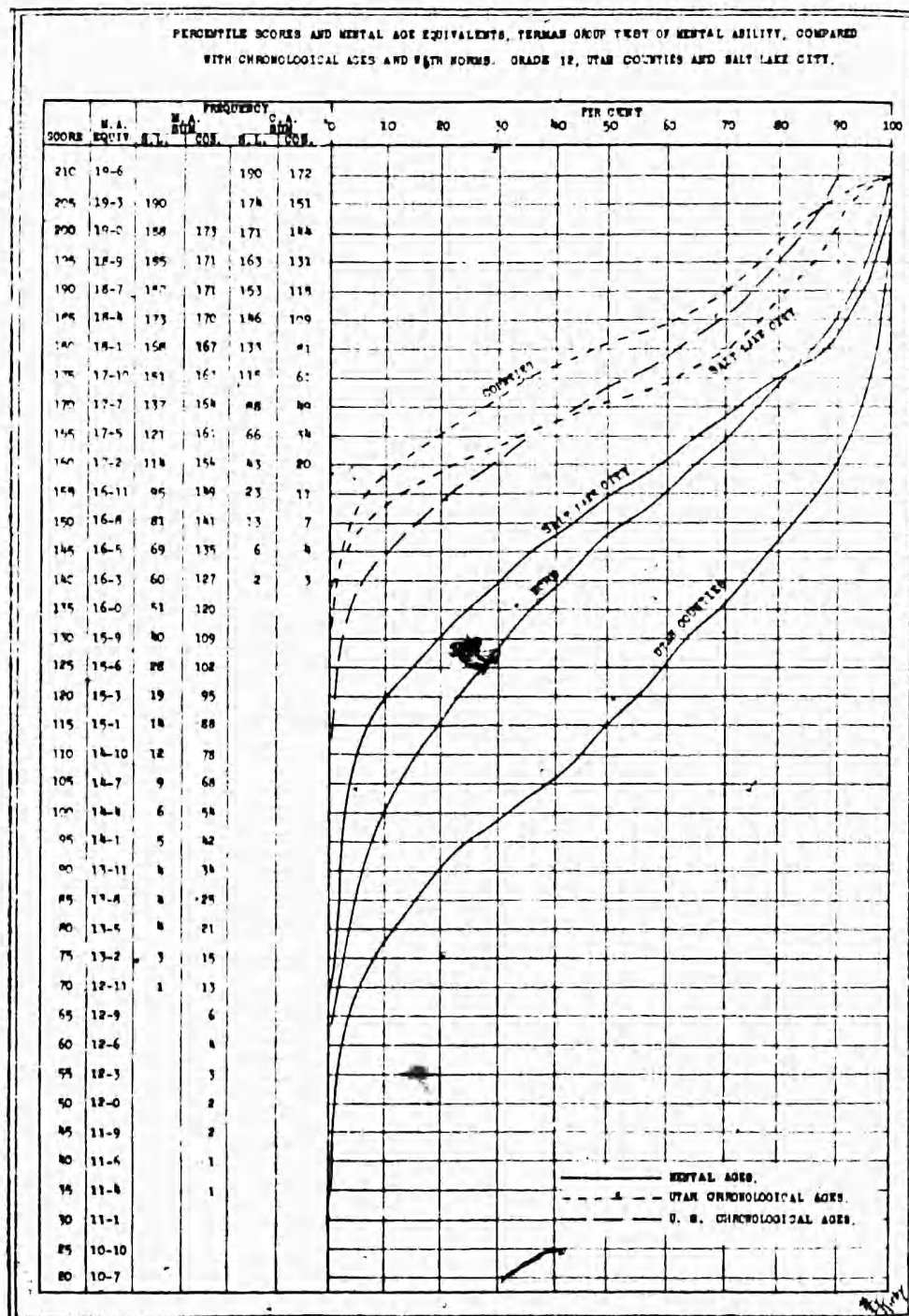


FIG. 24.—Percentile scores and mental age equivalents, Terman test of mental ability, grade 12

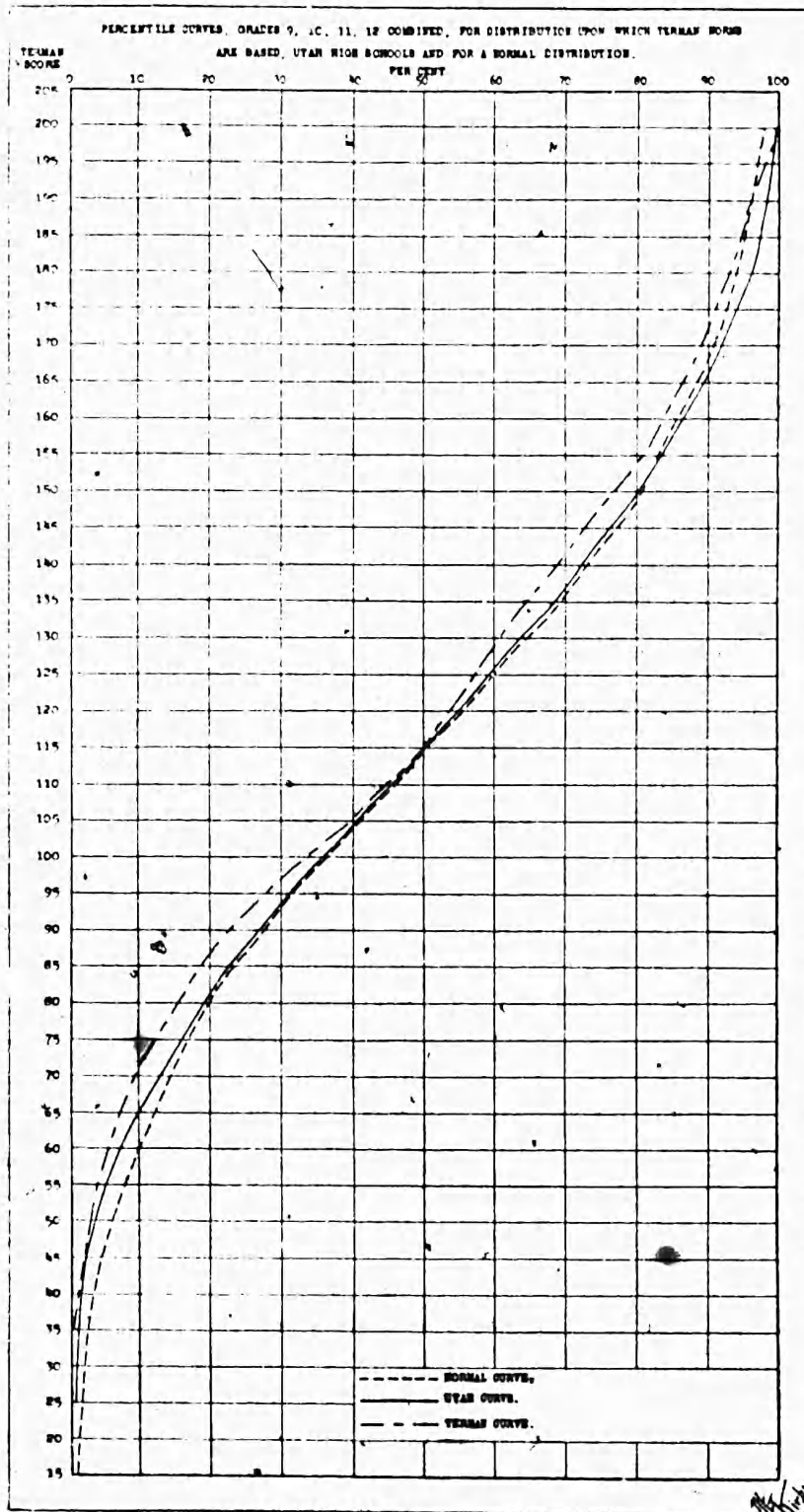


FIG. 25.—Percentile curves, grades 10 to 12 combined



The county schools obviously have all the variability common to a normal population group to deal with in high school. The percentage of pupils of a low order of learning ability found in the schools is higher than common, and curriculum adjustment and school machinery, making it possible to serve the needs and interests of the widely varying ability groups, are obvious needs.

The data of the preceding sections have shown that Utah has succeeded in extending secondary education to a higher percentage of her secondary school age group than has any other State; and that grade progress is faster than is normal as indicated by a higher percentage of children of a given age reaching a given grade. The survival rate up to grade 8 is also higher through an unusual retention of overage pupils, but slower thereafter. Actual educational progress is decidedly slow as indicated by a progressive educational retardation as measured by standard tests. The test results indicate that pupils come into high schools with an educational status that is below the Stanford norms, and that in the academic fields of language—mathematics, science, and the social studies—the final accomplishment is low as measured by the Iowa test.

It is, therefore, pertinent to inquire into the personnel and present organization of the secondary schools in an effort to locate the probable sources of the shortcomings.

#### CURRICULUM EMPHASIS

Table 12 shows the present curriculum emphasis in high schools of Utah as measured by pupil clock hours of work devoted to specified departments. The data were obtained from reports to the high-school inspector for the school year 1925-26. The clock hours of work for each department were determined by application of the following formula: Pupil clock hours of work = number of pupils  $\times$  periods per week  $\times$  weeks per year  $\times$  length of periods in minutes  $\div 60$ . Table 10 reduces the pupil time given to each department to percentages of total pupil time. The percentage of time given to each department is the quotient obtained by dividing the time in clock hours per year given to the department by the total pupil time in clock hours per year given to all departments. Average percentages of time given to each department are shown for the sample schools, for 20 additional county schools, for 3 independent cities, for 27 county schools combined, and for the State as a whole obtained by combining the 3 independent cities with the 29 county high schools. The schools represented in the table are all the schools of the State for which accurate data were available.



TABLE 11.—Time of pupils in clock-hours per year given to specified subjects.  
[Analysis based on reports to high-school inspector, 1923]

School	District	English	Foreign language	Mathematics	Natural science	Social studies	Commercial subjects	Music	Home economics	Art	Physical education	Voluntary	Total
Davis County	Davis County	60,937.5	0.0	38,987.5	39,346.5	53,432.5	40,672.5	11,347.5	35,700.0	27,439.0	16,800.0	4,945.0	384,183.0
Granite	Granite	98,145.0	10,085.0	66,690.0	47,520.0	56,870.0	57,645.0	35,910.0	43,470.0	6,865.0	19,305.0	10,125.0	335,490.0
Huntington	Emery	14,424.0	0.0	360.0	4,480.0	4,040.0	5,720.0	0.0	7,680.0	6,360.0	11,340.0	0.0	54,764.0
Moroni	North Sanpete	27,300.0	0.0	6,825.0	2,290.3	30,861.0	10,893.7	5,381.5	10,043.7	4,402.5	22,837.5	0.0	126,587.0
North Cache	Cache	69,485.0	0.0	39,395.8	43,564.0	57,630.0	18,615.0	64,895.8	11,373.0	12,495.0	0.0	0.0	338,840.2
North Summit	North Summit	25,555.0	0.0	18,630.0	42,120.0	11,070.0	7,560.0	26,325.0	20,790.0	4,995.0	21,640.0	2,865.0	197,950.0
Parowan	Iron	22,440.0	0.0	16,680.0	18,840.0	26,190.0	0.0	0.0	9,504.0	8,928.0	9,960.0	0.0	23,270.0
Price	Carbon	72,090.0	15,255.0	39,015.0	59,400.0	35,775.0	46,170.0	17,820.0	83,480.0	14,445.0	14,175.0	23,085.0	70,710.1
Spanish Fork (junior and senior)	Nebo	52,650.0	0.0	44,685.0	29,740.0	71,955.0	8,640.0	7,614.0	4,138.0	5,534.0	62,670.0	8,505.5	15,601.5
Total for 9 schools		449,027.3	25,340.0	271,108.3	340,943.3	634,573.3	619,607.0	123,013.0	220,721.5	76,326.5	211,482.5	33,870.0	393,251.3
Beaver High	Beaver	23,375.0	0.0	24,140.0	24,116.0	22,383.0	7,083.0	4,391.0	22,950.0	4,958.0	21,108.0	0.0	168,987.0
Millard	Beaver	11,016.0	0.0	7,063.0	4,675.0	8,033.0	10,908.0	1,983.0	5,241.0	1,671.0	0.0	0.0	55,811.0
Minersville	Beaver	6,375.0	0.0	7,787.5	5,227.5	7,075.2	5,165.5	0.0	1,530.0	1,657.5	2,397.0	0.0	34,676.7
Pleasant Grove	Alpine	47,700.0	0.0	5,940.0	30,240.0	30,420.0	14,040.0	14,760.0	41,220.0	18,180.0	5,880.0	3,060.0	232,020.0
San Juan	Ruch County	9,150.0	340.0	6,800.0	4,590.0	4,590.0	0.0	0.0	0.0	0.0	0.0	0.0	34,578.0
Laketown	Nebo	3,952.5	0.0	1,147.5	4,335.0	4,845.0	0.0	0.0	0.0	0.0	0.0	0.0	14,281.0
Payson	Valley	47,365.0	0.0	32,065.0	35,530.4	48,375.0	18,630.0	31,275.0	22,030.0	9,450.0	32,043.0	0.0	390,400.0
Valley	Kane	8,460.0	0.0	4,320.0	4,320.0	684.0	600.0	1,725.0	4,050.0	108.0	3,360.0	0.0	35,340.0
Jordan	Jordan	50,400.0	0.0	18,637.5	0.0	65,362.5	3,281.2	23,887.5	34,125.0	6,562.5	19,031.5	13,125.0	260,193.9
Cyrus	Granite	10,883.7	0.0	9,318.7	11,025.0	10,762.5	0.0	4,593.7	11,812.5	0.0	3,281.5	0.0	74,550.1
Grand County High School	Grand	12,468.7	4,008.7	8,137.5	15,750.0	13,387.5	2,756.2	3,150.0	1,837.5	0.0	6,562.5	0.0	74,680.6
North Sevier	Sevier	26,580.0	0.0	12,240.0	17,805.0	17,860.0	8,340.0	0.0	18,960.0	3,450.0	1,368.0	0.0	124,533.0
Tintic	Tintic	32,703.7	3,990.0	32,490.0	19,665.0	18,525.0	21,375.0	14,392.5	7,267.5	0.0	24,438.7	0.0	195,960.1
Ferron	Emery	10,040.0	0.0	7,320.0	3,120.0	9,000.0	3,000.0	2,520.0	5,280.0	1,320.0	3,840.0	0.0	53,980.0
Wayne	Buttont	18,840.0	0.0	7,440.0	8,040.0	3,360.0	0.0	1,320.0	9,395.0	3,720.0	9,120.0	0.0	63,576.0
Grantsville	Tooele	19,575.0	0.0	9,720.0	12,240.0	9,315.0	0.0	15,240.0	9,120.0	0.0	0.0	0.0	84,390.0
Wasatch	Wasatch	42,330.0	0.0	26,520.0	14,790.0	23,205.0	13,770.0	0.0	27,880.0	9,475.0	15,555.0	0.0	216,162.0
South Cache	Cache	18,305.0	0.0	20,385.0	34,405.0	46,440.0	22,275.0	30,790.0	22,810.0	18,360.0	15,930.0	0.0	246,190.0
Uintah	Uintah	55,040.0	5,265.0	30,840.0	28,755.0	41,850.0	11,745.0	8,667.0	12,118.0	14,850.0	23,220.0	0.0	261,626.0
Bear River	Bear River	79,406.2	0.0	40,950.0	50,925.0	45,543.7	4,987.5	22,443.7	41,737.5	16,537.5	13,367.5	0.0	362,351.1
Total for 20 schools		534,805.8	13,683.7	306,301.7	349,553.9	631,336.4	619,607.0	123,013.0	220,721.5	76,326.5	211,482.5	33,870.0	393,251.3
Park City	Park City	17,145.0	18,225.0	20,520.0	13,230.0	1,755.0	8,550.0	0.0	10,881.0	10,980.0	21,090.0	0.0	133,965.0
Murray	Murray	38,250.0	1,950.0	18,050.0	20,250.0	36,750.0	62,100.0	23,500.0	4,970.0	7,540.0	5,250.0	0.0	223,625.0
Provo	Provo	99,252.0	3,847.5	44,820.0	92,097.0	68,882.5	22,575.0	14,435.0	10,881.0	3,307.5	31,252.5	270.0	465,197.7
Total for 3 cities		154,647.0	24,022.5	83,390.0	125,577.0	105,387.5	92,925.0	38,235.0	29,331.0	3,307.5	58,792.5	270.0	823,860.7
Total for 29 schools		983,832.3	39,063.7	577,470.0	672,934.7	793,910.0	634,453.7	304,144.4	334,081.5	84,945.0	419,546.2	554,045.0	0.0
State total (32 schools)		1,138,480.0	63,026.2	660,860.0	755,411.7	884,307.5	837,878.7	342,379.7	423,472.5	188,252.5	547,338.7	771,775.0	270,000.0



TABLE 12.—Percentage of time of pupils in clock-hours per year given to specified subjects  
[Analysis based on reports to high-school inspector, 1926]

School	District	Percentage of time of pupil in clock-hours per year given to specified subject													
		English	Foreign language	Mathematics	Natural science	Social studies	Commercial subjects	Mechanic arts	Home economics	Agriculture	Music	Art	Physical education	Miscellaneous	Total
Davis County High School.	Davis County	17.4	0.0	10.1	10.2	13.9	10.6	2.9	9.2	7.1	4.3	1.2	12.7	0.0	100
Granite	Granite	18.7	1.9	12.0	9.0	10.8	10.9	4.9	8.2	1.2	4.0	2.0	16.0	0.0	100
Huntington	Emery	26.6	0.0	0.6	0.8	7.5	9.4	0.0	14.1	11.7	20.9	0.0	7.9	0.0	100
Moroni	North Sanpete	18.5	0.0	4.6	13.6	20.9	7.4	3.6	6.0	3.0	13.5	0.0	4.0	0.0	100
North Cache	Cache	20.5	0.0	11.6	12.8	17.0	5.6	5.5	19.1	3.3	3.7	0.0	0.8	0.0	100
North Summit	North Summit	12.9	0.0	9.4	21.2	5.6	3.8	16.3	10.5	2.5	10.9	1.3	8.4	0.0	100
Parowan	Iron	18.2	0.0	13.5	15.2	21.2	0.0	0.0	7.7	7.2	8.1	0.0	8.9	0.0	100
Panguitch	Carbon	19.4	4.1	10.5	16.0	9.6	17.4	4.8	9.0	0.0	3.8	3.7	6.2	0.0	100
Spanish Fork (junior and senior).	Nebo	16.9	0.0	14.1	8.4	22.8	2.7	2.4	1.3	1.8	26.1	0.7	2.7	0.0	100
Percentage for 9 schools.		18.2	1.0	11.0	11.8	14.5	7.9	4.6	6.5	3.1	8.6	1.3	8.2	0.0	100
Beaver High	Beaver	13.9	0.0	14.3	14.3	13.3	4.2	2.6	13.6	2.9	12.5	0.0	8.2	0.0	100
Millford	Beaver	19.7	0.0	12.7	8.4	14.4	19.5	3.6	9.4	0.0	3.0	0.0	9.4	0.0	100
Minersville	Beaver	18.4	0.0	2.3	15.1	20.4	16.9	0.0	4.4	4.8	6.9	0.0	10.8	0.0	100
Pleasant Grove	Alpine	20.6	0.0	2.6	13.0	13.1	6.1	6.4	17.8	7.8	2.4	1.3	9.0	0.0	100
San Juan	San Juan	26.5	1.0	19.7	13.3	13.3	0.0	0.0	0.0	0.0	16.2	0.0	10.0	0.0	100
Laketown	Rich County	27.8	0.0	8.0	30.1	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Payson	Nebo	15.8	0.0	10.7	11.8	16.1	6.2	10.4	7.3	3.1	10.9	0.0	7.7	0.0	100
Valley	Nebo	23.1	0.0	12.2	12.2	2.8	1.2	4.9	11.6	0.3	9.5	0.0	21.7	0.0	100
Jordan	Jordan	17.4	0.0	6.4	0.0	22.5	1.1	8.2	11.8	2.3	6.6	4.5	19.2	0.0	100
Cyprus	Granite	14.6	0.0	12.5	14.8	14.4	0.0	6.2	15.8	0.0	4.4	0.0	17.3	0.0	100
Grand County High School.	Grand	16.7	5.4	10.9	21.1	17.9	3.7	4.2	2.5	0.0	8.4	0.0	8.8	0.0	100
North Sevier	Sevier	19.4	0.0	8.9	13.0	13.1	6.1	0.0	13.9	2.5	10.0	0.0	13.1	0.0	100
Tintic	Tintic	16.7	2.0	16.6	10.0	9.5	10.9	7.3	3.7	0.0	12.5	0.0	10.7	6.0	100
Ferron	Emery	18.7	0.0	13.6	5.8	16.7	5.6	4.7	9.8	2.5	7.1	0.0	15.6	0.0	100
Waynes	Butt	29.6	0.0	11.7	12.6	5.3	0.0	2.1	14.7	3.9	14.3	0.0	3.7	0.0	100
Grantsville	Tooele	23.2	0.0	11.5	14.5	11.0	0.0	18.1	10.8	0.0	0.0	0.0	10.8	0.0	100
Wasatch	Wasatch	19.6	0.0	12.3	0.8	10.7	6.4	0.0	12.9	4.4	7.2	0.0	19.7	0.0	100
South Cache	Cache	0.5	0.0	6.9	18.4	15.7	7.5	10.4	7.7	6.2	5.4	0.0	15.4	0.0	100

Utah Bear River.....	21.1 21.6	2.0 0.0	11.8 11.3	11.0 14.1	10.0 12.6	4.5 1.4	3.3 6.2	6.5 11.5	5.7 4.6	8.9 3.7	0.0 0.0	9.3 12.8	0.0 0.0	100 100
Percentage for 20 schools.	17.8	0.5	10.3	11.6	11.4	4.9	6.0	10.2	3.6	7.4	0.5	12.4	0.0	100
Park City.....	12.8	13.6	15.3	9.9	1.3	6.4	0.0	10.1	0.0	14.9	0.0	15.7	0.0	100
Murray.....	17.1	0.9	8.1	9.1	16.4	27.8	10.6	2.2	0.0	3.4	2.3	2.1	0.0	100
Provo.....	21.3	0.8	9.6	19.8	14.4	4.8	3.1	2.3	0.7	6.7	3.5	12.8	0.0	100
Percentage for 3 cities.	18.8	2.9	10.1	15.3	12.8	11.3	4.6	3.6	0.4	7.1	2.6	10.4	0.0	100
Percentage for 29 schools.	18.0	0.7	10.5	11.9	14.2	6.3	5.5	9.7	3.4	7.9	0.9	10.5	0.0	100
State percentage (32 schools).	18.6	1.0	10.5	12.4	14.0	6.9	5.4	8.9	2.9	7.8	1.1	10.6	0.0	100
Percentage for 15 cities. <sup>1</sup>	18.1	11.1	11.0	10.2	11.4	12.4	7.5	4.7	0.0	2.5	2.4	7.7	0.3	100

<sup>1</sup> Figures given by George S. Counts.



For comparative purposes the average percentage of time given to each department by 15 progressive cities of the United States as determined by Counts in his study, "The senior high school curriculum," Supplementary Educational Monograph No. 29, 1926, the School Review, University of Chicago Press, is also shown. The table presents several significant departures from accepted good practice as follows:

1. High schools of Utah have generally abandoned both ancient and modern foreign languages.

2. A considerable number of schools have practically abandoned mathematics.

3. Home economics and music are emphasized to an unusual extent.

4. The most striking feature in the situation is the evident lack of any definite standards governing curriculum emphasis. This is indicated by the variability of percentages of time given to different departments of individual schools. The ranges of percentage of time given to the different departments are as follows: English, 6.5—29.6; foreign language, 0.0—13.6; mathematics, 0.6—19.7; natural science, 0.0—30.1; social studies, 1.3—34.0; commercial subjects, 0.0—27.8; mechanic arts, 0.0—18.1; home economics, 0.0—19.1; agriculture, 0.0—11.7; music, 0.0—26.1; art, 0.0—4.5; physical education, 0.0—21.7. The corresponding ranges in the 15 cities studied by Counts are: English, 14.1—22.8; foreign language, 4.4—20.0; mathematics 7.9—16.3; natural science, 7.0—18.9; social science, 8.6—16.6; commercial subjects, 7.6—22.8; industrial arts, 1.0—14.7; home economics, 0.6—7.0; music, 0.0—65; art, 0.0—7.1; physical education, 3.9—16.2.

The variability of curriculum emphasis in Utah high schools is so extreme that obviously if curriculum emphasis at one extreme of the range is proper it is not proper at the other extreme of the range. When it is considered that schools standing near each extreme may be found which are of comparable size and are serving comparable pupil groups, the need for a careful testing of values accruing from the different trends of curriculum emphasis is apparent.

Table 13 shows curriculum emphasis for specified groups of high schools of the State as measured by relative teaching time in clock hours per year given to each department.

Table 14 shows the percentage of teaching time given to each department by the sample high schools. Comparison of the percentages of pupil and teaching time given to each department for the nine high schools shows a general tendency for departments having relatively minor emphasis as measured by pupil time to

claim more than their proportionate share of teaching time. The results of the testing program considered in connection with facts concerned with curriculum emphasis indicate a lack of clearly defined objectives in the special departments of the high school or a poor teaching technique in seeking those objectives. The schools generally give more than the usual emphasis to English and the social studies, but the outcomes in reading ability, knowledge of literature, and language usage are inferior, as are outcomes in the fields of historical and civic information. The schools, because of the heavy emphasis on English and the social studies, give more than the usual emphasis to the four academic fields, measured by the Iowa high-school content examination, yet the composite scores on this test, formed by combining the scores on English, mathematics, science, and the social studies, are decidedly low. Such outcomes must be due either to misplaced aims in the individual subjects or to a poor teaching procedure in seeking the aims set up. Observation of classroom work gives the impression that both factors enter into the situation.



TABLE 13.—Time of teachers in clock hours per year devoted to specified subjects

[Analysis based on reports of high-school principals to State high-school inspector, 1925-26]

School	District	English	Foreign language	Mathematics	Natural science	Social science	Commercial subjects	Industrial arts	Home economics	Agriculture	Music	Art	Physical education	Miscellaneous	Total
Carbon County	Price	2,362.5	918.8	1,443.8	1,837.5	1,000.0	1,837.5	787.5	1,575.0	0.0	856.3	787.5	1,312.5	0.0	14,568.9
Davis County	Kaysville	2,167.5	0.0	1,785.0	1,683.0	1,637.5	1,147.5	847.5	1,530.0	739.5	765.0	382.5	892.5	0.0	13,617.0
Granite	Granite	3,740.0	675.0	2,430.0	2,100.0	2,025.0	1,755.0	2,430.0	3,105.0	405.0	810.0	510.0	1,485.0	0.0	21,870.0
Huntington	Emery	480.0	0.0	360.0	360.0	600.0	720.0	0.0	480.0	240.0	300.0	0.0	624.0	0.0	3,840.0
Mooring	North Sanpete	1,000.0	0.0	202.5	833.1	1,312.5	525.0	262.5	787.5	292.5	525.0	0.0	327.9	0.0	6,168.5
North Cache	Richmond	2,466.0	0.0	2,167.5	1,535.5	1,938.0	842.5	765.0	2,193.0	152.8	510.0	0.0	637.5	0.0	13,310.8
North Summit	North Summit	945.0	0.0	675.0	1,080.0	270.0	675.0	945.0	1,350.0	270.0	610.0	135.0	675.0	0.0	7,830.0
Prowan	Iron	840.0	0.0	480.0	1,000.0	440.0	0.0	0.0	724.0	1,344.0	384.0	0.0	576.0	0.0	5,328.0
Spanish Fork	Spanish Fork	1,485.0	0.0	540.0	1,080.0	1,080.0	540.0	507.0	594.0	324.0	540.0	405.0	675.0	0.0	7,830.0
Total for 9 schools		15,109.0	1,593.8	10,143.8	11,299.1	10,413.0	8,092.5	6,024.0	12,228.5	3,737.8	5,300.3	2,520.0	6,821.4	0.0	94,363.2
Park City		675.0	810.0	945.0	945.0	0.0	810.0	0.0	945.0	0.0	810.0	0.0	540.0	0.0	6,480.0
Murray		1,350.0	160.0	600.0	720.0	1,050.0	750.0	1,650.0	470.0	0.0	450.0	450.0	135.0	0.0	7,785.0
Provo		3,199.5	405.0	1,755.0	3,640.5	2,430.0	2,392.5	1,350.0	900.0	337.5	810.0	810.0	2,270.7	27.0	20,247.7
Total for 3 cities		5,224.5	1,375.0	2,700.0	5,335.5	3,480.0	3,972.5	3,000.0	2,295.0	337.5	2,070.0	1,270.0	2,895.7	27.0	33,912.2
American Fork	Alpine	1,210.0	0.0	405.0	945.0	915.0	334.0	540.0	370.0	170.0	170.0	0.0	540.0	0.0	5,779.0
Lehi	do	1,620.0	0.0	540.0	940.0	1,210.0	720.0	1,000.0	1,800.0	940.0	540.0	0.0	390.0	0.0	9,770.0
Lincoln	do	1,215.0	0.0	810.0	810.0	945.0	540.0	945.0	1,050.0	540.0	540.0	0.0	540.0	0.0	7,965.0
Pleasant Grove	do	1,620.0	0.0	180.0	900.0	1,080.0	540.0	720.0	1,440.0	900.0	360.0	0.0	720.0	0.0	8,400.0
Beaver	Beaver	870.0	0.0	564.6	708.3	566.6	566.6	566.6	1,598.6	116.6	566.6	0.0	683.2	0.0	5,474.4
Wayne	do	480.0	0.0	240.0	240.0	170.0	0.0	720.0	435.0	110.0	240.0	0.0	0.0	0.0	2,592.0
Grantsville	Blackwell	945.0	0.0	565.0	565.0	270.0	0.0	625.0	945.0	120.0	120.0	0.0	270.0	0.0	4,425.0
Wasatch	Grantsville	1,730.0	0.0	637.5	725.0	725.0	637.5	255.0	382.5	27.0	485.0	0.0	437.5	0.0	5,840.0
Duchesne	Heber	1,128.7	0.0	243.7	525.0	627.5	787.5	292.5	418.5	292.5	308.7	0.0	243.7	131.5	4,973.8
Central	Duchesne	1,576.0	120.0	480.0	720.0	370.0	120.0	840.0	720.0	0.0	120.0	120.0	120.0	0.0	4,280.0
Ferron	Emery	480.0	0.0	240.0	240.0	370.0	240.0	240.0	370.0	120.0	300.0	0.0	240.0	0.0	2,880.0
Garfield County	do	1,000.0	0.0	300.0	600.0	1,300.0	600.0	400.0	600.0	300.0	600.0	0.0	600.0	0.0	6,450.0
Escalante	Garfield	525.0	0.0	525.0	525.0	300.0	0.0	0.0	370.0	0.0	370.0	175.0	175.0	0.0	2,450.8
Grand County	Grand	656.2	262.5	393.7	787.5	656.2	262.5	262.5	262.5	0.0	393.7	0.0	262.5	0.0	4,199.8
Cyrus	Granite	393.7	0.0	393.7	262.5	393.7	0.0	393.7	262.5	0.0	262.5	0.0	262.5	0.0	2,639.8
Jordan	do	1,708.2	0.0	525.0	0.0	1,708.2	138.7	787.5	1,151.2	262.5	393.7	525.0	1,050.0	0.0	8,276.0
Nephi	Jordan	1,775.0	0.0	675.0	1,290.0	729.0	810.0	270.0	507.0	540.0	729.0	1,080.0	405.0	540.0	9,342.0
Kanab	do	480.0	0.0	600.0	720.0	490.0	360.0	0.0	240.0	0.0	600.0	0.0	120.0	0.0	3,600.0
Valley	Kane	370.0	0.0	120.0	120.0	190.0	120.0	240.0	240.0	45.0	120.0	0.0	120.0	0.0	1,888.0
Hinkley	do	720.0	0.0	240.0	100.0	490.0	370.0	370.0	1,320.0	370.0	370.0	0.0	240.0	0.0	5,040.0
Brigham	Millard	1,040.6	0.0	555.0	749.2	555.0	971.5	832.5	277.5	0.0	277.5	0.0	178.1	0.0	5,456.9
Delta	Jordan	1,620.0	0.0	382.5	1,020.0	510.0	510.0	1,020.0	1,570.0	637.5	765.0	255.0	510.0	0.0	8,160.0
Garden City	Rich	329.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,518.4
Payson	Nebo	1,687.5	0.0	945.0	1,102.5	1,485.0	1,080.0	1,080.0	1,305.0	450.0	495.0	0.0	630.0	0.0	10,260.0

Woodruff	453.3	0.0	113.3	226.6	453.3	0.0	113.3	340.0	113.3	113.3	0.0	113.3	0.0	2,839.7
Randolph	561.7	0.0	255.0	0.0	596.5	0.0	0.0	308.0	0.0	127.5	0.0	0.0	0.0	1,836.7
Laketown	510.0	0.0	127.5	382.5	382.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,402.5
South Sevier	840.0	0.0	480.0	720.0	720.0	840.0	0.0	600.0	240.0	490.0	120.0	480.0	0.0	5,520.0
Richfield	2,106.0	0.0	0.0	1,134.0	1,215.0	1,080.0	270.0	1,215.0	405.0	405.0	54.0	567.0	135.0	9,531.0
Epurian	783.0	0.0	540.0	1,417.5	675.0	945.0	270.0	1,215.0	135.0	135.0	0.0	229.5	0.0	6,345.0
North Sevier	900.0	0.0	480.0	690.0	690.0	720.0	0.0	1,560.0	240.0	240.0	0.0	783.7	0.0	6,060.0
Tintic	1,486.2	285.0	855.0	855.0	712.5	1,140.0	997.5	427.5	0.0	570.0	0.0	0.0	0.0	8,092.4
Tooele	1,455.0	135.0	810.0	1,455.0	675.0	0.0	0.0	1,566.0	135.0	405.0	0.0	540.0	675.0	7,911.0
South Summit	656.2	0.0	292.5	333.7	292.5	656.2	525.0	656.2	134.2	510.4	0.0	525.0	0.0	4,581.9
San Juan	680.0	85.0	340.0	340.0	340.0	0.0	0.0	0.0	0.0	170.0	0.0	170.0	0.0	2,125.0
Gunnison Valley	701.2	0.0	519.7	688.5	255.0	382.5	0.0	892.5	510.0	255.0	0.0	255.0	0.0	4,449.7
Manti	1,113.7	0.0	519.7	707.2	1,089.0	396.0	742.5	1,113.6	49.5	222.7	0.0	173.2	0.0	6,187.1
Millford	651.6	0.0	253.0	253.0	1,089.0	708.3	141.5	418.0	0.0	198.3	0.0	141.5	0.0	3,183.2
South Cache	2,025.0	0.0	810.0	1,775.0	1,215.0	1,620.0	1,890.0	1,215.0	675.0	270.0	0.0	1,040.0	0.0	12,555.0
Hyrum	1,890.0	405.0	1,080.0	945.0	1,040.0	1,215.0	486.0	891.0	918.0	1,215.0	0.0	945.0	0.0	11,070.0
Uintah	2,231.2	0.0	787.5	1,770.0	1,787.5	131.2	918.7	1,575.0	525.0	525.0	0.0	1,443.7	0.0	10,805.9
Bear River														
Total for 41 schools	42,452.6	1,392.5	20,331.2	27,809.8	28,162.0	19,522.5	28,361.5	30,758.6	40,537.1	15,171.0	2,329.0	17,482.9	1,481.5	235,892.7
State total	53,286.1	4,251.3	33,175.0	44,354.4	42,055.0	31,557.5	38,185.5	45,292.1	14,612.4	22,601.3	6,109.0	27,200.0	1,508.5	364,168.1



TABLE 14.—*Per cent of time of teachers in clock hours per year devoted to specified subjects*

[Analysis based on reports of high-school principals to State high-school inspector, 1925-26]

School	English	Foreign language	Mathematics	Natural science	Social science	Commercial subjects	Industrial arts	Home economics	Agriculture	Music	Art	Physical education	Miscellaneous	Total
Carbon County.....	16.2	6.3	9.9	12.6	7.2	12.6	5.4	10.8	0.0	4.5	5.4	9.0	0.0	100
Davis County.....	15.9	0.0	13.1	12.3	12.2	8.4	6.3	11.2	5.4	5.6	2.9	6.5	0.0	100
Granite.....	17.3	3.0	11.1	9.8	9.2	8.0	11.2	14.2	1.8	3.7	3.7	6.8	0.0	100
Huntington.....	12.5	0.0	9.4	9.4	15.8	18.9	0.0	12.5	6.3	9.4	0.0	6.3	0.0	100
Moroni.....	17.2	0.0	4.2	13.8	21.3	8.5	4.2	12.7	4.2	8.5	0.0	5.3	0.0	100
North Cache.....	11.2	0.0	10.2	11.7	14.6	6.7	5.7	16.5	1.1	3.9	0.0	4.8	0.0	100
North Summit.....	12.0	0.0	8.6	13.8	3.4	8.6	12.0	17.1	3.4	10.3	1.7	8.6	0.0	100
Parowan.....	15.7	0.0	9.0	11.2	9.0	0.0	0.0	11.7	25.2	7.2	0.0	10.8	0.0	100
Spanish Fork.....	18.9	0.0	6.9	13.8	13.8	6.9	7.1	7.4	4.1	6.9	5.2	8.6	0.0	100
Per cent for 9 schools.....	16.5	1.7	10.7	11.9	12.3	8.5	7.0	12.9	3.9	5.7	2.7	7.2	0.0	100

There is also shown a general tendency for the nonacademic subjects to receive a higher percentage of teaching time in proportion to the pupil time than is the case for the academic subjects. The effect of these tendencies on the cost of instruction is made obvious by Table 15, which shows the salary cost of academic and total hours of work offered in six of the sample high schools for which the requisite data were available.

TABLE 15.—*Comparative cost of academic and total pupil clock hours of work in six Utah high schools from the sample districts*

School	Cost per pupil clock hours—academic subjects	Cost per pupil clock hours—all subjects	School	Cost per pupil clock hours—academic subjects	Cost per pupil clock hours—all subjects
1.....	0.070	0.078	4.....	0.068	0.083
2.....	.17	.11	5.....	.050	.072
3.....	.052	.078	6.....	.070	.11

The effort to broaden course offerings in the small schools through introducing the comparatively expensive departments has undoubtedly drawn upon available financial resources so that economies have been sought in other directions. This has resulted in keeping teacher salaries at a lower level than would otherwise be the case and has led to a general inferiority of educational outcomes. Through a broad program of studies, including several nonacademic as well as the traditional academic fields, abnormal concentration on a few fields in individual schools, with consequent narrow pupil-teacher ratios in other fields, the per capita costs of instruction are being made decidedly higher than salary schedules and the size of high schools make necessary. Through a better balancing of



emphasis on special departments and fewer special departments in the smaller schools the funds now being spent can be made to provide a better quality of work. One obvious means of economy is open to the State through standardization of curriculum emphasis. The proportion of effort going into nonacademic fields of the curriculum makes a careful evaluation of outcomes from these fields of effort important. The survey employed no measures of outcomes in these fields. No reliable objective measures are available. It is a consensus of opinion of members of the survey staff, however, that the programs of nonacademic departments of high schools in Utah are more uncertain of outcomes than the academic departments.

The fields of health and physical education, home economics, and industrial education were made the subjects of special investigations. While unusual emphasis is given to home economics and physical education by the high schools as measured by total time allotment, programs as a whole are such that educational values commensurate with the time allotted are doubtful. Industrial education, except in a very few centers, has had little development outside the field of farm mechanics. The special reports in these fields follow.

## HEALTH AND PHYSICAL EDUCATION

### 1. HEALTH EXAMINATIONS AND TEACHING

Throughout the country health work in high schools seems left largely to chance, and at best it is an elective subject, jostled by mathematics, languages, and other things of minor human import, but which are required for college entrance. There are seldom any physical examinations of high-school pupils unless it be for that peculiarly favored class who participate in interscholastic sports, and often these are neglected in this respect. The teaching of hygiene in the senior high school is usually foisted, as a side issue of his work, upon the teacher of physical education, who is, strange to say, often unfitted for the task, or upon the teacher of general science or of biology who may or may not be prepared to do good work along this line. In the junior high school things usually go better, but even here there is often scant attention to the subject.

Utah is no exception to this general rule, though in at least one junior high school the matter of health is taken seriously and enthusiastically by the principal and hence by the teachers and pupils. The principal was found at the time of our visit in the act of using a clinical thermometer on pupils returning after illness, thus doing what every principal can, but exceedingly few have attempted to do, safeguarding both the returning pupil and those already in school. It is quite true that it may be the business of the family physician, health officer, or some one else to pass on the condition of



such children, but if those agents are not existent or not functioning, it certainly devolves upon the principal or teacher to spend a few minutes over means of sickness prevention. Health is being cried from the housetops as fundamental in school work, and here is one principal in a thousand who is really putting this slogan in practice along these lines.

In this school the advanced stand has been taken that no child ought to be graduated whose teeth are not as nearly 100 per cent perfect as the dentist and the child can make them. It only remains to have such a requirement include every other correctable defect and habit; to set a revolutionary but not impracticable pace in school-health endeavor. We are only fearsomely scratching the surface of things otherwise. Athletic trophies pale into insignificance beside a diploma which is conferred in part for bodily perfecting and for the practice of good habits.

Even if we can not withhold the hallmark of the school when such a standard is not attained, we can at least grade children and pass them with or without honor according to their accomplishments in practical hygiene.

The remark of the principal of this school that the health program was easier to "put over" than any other subject which had sought admission to the curriculum is most worthy of attention. If the task is found difficult in other schools there must be something wrong with the method employed or because it has been done in only a half-hearted way from lack of due pressure from above.

In at least one senior high school the teaching of physiology (by the instructor in biology) is done in such a manner as to attract students to this elective subject. The apparatus supplied for demonstration purposes was worthy of a college of superior rank. Whether the teacher made each pupil appreciate that he was carrying on in his own anatomy a piece of laboratory work in physiology of the utmost importance to his present and future welfare and work, and how much he influences the course of that experiment, we can not say. In other schools we know that the teaching is too much of a textbook drill to be very effective for healthy living, but little more can be expected from teachers not trained in best methods and without assistance from capable supervisors.

The subjects of personal, home, and community health deserve to be presented to all students for at least two periods a week throughout both the junior and senior high-school courses, and should be closely linked with yearly health examinations, with biology, domestic science, and with physical training. The health teaching may well be presented in different years from different angles by those specially interested in these different lines of work, provided each is qualified (as he should be) to do this.



## 2. PHYSICAL EDUCATION

The facilities for physical training, especially out of doors, are as a rule better supplied in Utah than elsewhere. So far as observed, there is ample playground space. Physical education receives proportionately good emphasis in the program of studies.

The physical education of girls in high schools is on the whole well managed, though the time devoted to this work might well be extended, where possible, to after-school activities.

While in some districts the work for boys is based on the principle of doing the greatest good for the greatest number, and intramural activities are being well developed, in too many schools physical education means chiefly the coaching of those who participate in interscholastic sports. There seems always to be plenty of funds forthcoming for coaching and equipping teams for these exciting entertainments. While these activities may have their value, such extravagant outlay for the benefit of the few can not be justified on the ground that it is a health measure even for those who are eligible. Athletic events depend on the health of the participants, but they have little if anything to do with the preservation or promotion of health, unless it be that of the onlookers drawn into the open. Physical directors should be employed for promoting the general participation in games, and by so doing material for representative teams, if these are needed, may be better recruited.

The organization of the State School Athletic Association is a good move and the new requirements of special teachers of physical education and coaches augur better things for the future. The State School Athletic Association should see that no boy or girl takes part in athletics without a previous examination and certificate of fitness from a physician.

The code of the Sportsmanship Brotherhood might be introduced to advantage, and this code is intended to apply also to conduct other than that in relation to sports.

## 3. CERTIFICATION OF TEACHERS OF PHYSICAL EDUCATION

\* By the adoption of the new requirements of applicants for special certificates authorizing the holders to teach physical education or to act as coaches of athletic teams in high schools (effective in 1926) the State is doing much to rid itself of those who hold their positions chiefly because they happen to have excelled in some kind of sport. Such persons may be able to coach winning teams, but their usefulness is limited to this expensive luxury.

It is to be hoped that, as the supply of teachers permits, the requirements for all teachers of physical education will be raised to the equivalent of a major course in physical education, including thorough preparation in hygiene, or to three years special training.



## HOME ECONOMICS

Home economics education in Utah, as reported herein, relates to the kind found in the rural and urban junior and senior high schools. The account, as submitted, is based upon personal visits to 8 junior and 20 senior high schools, and upon questionnaire returns from 17 junior, 8 junior-senior, and 44 senior high schools.

Home economics in the Utah public schools begins in the seventh grade or the first year of the junior high school. It continues throughout the junior high school and extends into the senior high school.

*Equipment.*—The floor space assigned to the home economics departments of the senior high schools of Utah is generous; in a number of schools it exceeds the needs. On the whole, better provision has been made for food than for clothing laboratories. Housekeeping, home nursing, and child-care equipment is much needed, also illustrative material for teaching. Of the latter very little was found. Excellent material has been produced by many Government departments and bureaus, commercial firms, and institutions of higher learning, and is, therefore, available.

The equipment of the food laboratories in more than 75 per cent of the schools visited is of the old-fashioned hollow-square type. It is good so far as it goes, but does not conform to modern ideas of education. The unit desk arrangement, with small, flat top ranges, placed either at the end of each desk or through the center of the room (whether gas or electricity is used), is considered more efficient, and is used extensively throughout the United States. It not only makes for economy of floor space, and hence accommodates larger classes, but approximates home conditions and adds to independence and efficiency. No unit kitchens were observed. In one of the comparatively new high schools, the foods laboratory was equipped with old-fashioned desks sufficient for a class of 48, but only six girls were in the class observed.

The large floor space allotted to dining rooms may be justifiable for consolidated rural high schools where a pleasant meeting place for community gatherings is needed, but it should not be overlooked that the dining room is as much an adjunct of the foods laboratory as the range and the sink. The main purpose of the dining room should be to train girls to do better, and on a higher level, all the daily activities performed by them in their home dining rooms. And it should be to teach girls the tangible things concerned with the eating, serving, and care of food, the various types of furnishings for the family-sized dining room, and also those intangible matters connected with the hospitality of the home.

Laundry facilities were found in only a few schools.



The lack of adequate home economics equipment for junior high schools is serious, and prevents the installation of food work which is a paramount need of seventh grade children. The inadequacy of the food equipment is the reason for clothing being taught exclusively in the seventh and eighth grades.

A home economics library nucleus was found in some schools. But its expansion is an immediate need and is most earnestly urged, for as yet suitable textbooks on home economic subjects for the various age levels are few in number. Valuable material in the form of bulletins, pamphlets, circulars, posters, and magazine articles are easily obtainable and are of indispensable value in helping to enrich the subject matter. Much of this material has been listed and distributed by the State department of education.

On the whole, the senior high schools are more adequately equipped than the junior high schools, but the equipment in neither one meets the demands of all the home-making activities found in the homes of Utah.

*Home economics requirement.*—All of the junior high schools visited required home economics in the seventh and eighth grades, and in the ninth where equipment facilities warranted.

Questionnaire returns show home economics to be required in 12, and elective in 5 of the 17 junior high schools; required in 9, and elective in 35 of the 44 senior high schools; required in 1, and elective in 6 of the 8 junior-senior high schools. The number of home economic units credited toward graduation ranges all the way from one to six.

The home economics curricula range in length from two to four years, but in the majority of cases two years were offered in the senior high school.

*Factors determining courses in home economics.*—Inspection and questionnaire reports show that the main objectives underlying home economics education, as offered by those in charge, are (1) to teach the girl to sew and cook; (2) to train her for future home-making responsibilities; and (3) to interest her in home-making activities.

*Time allotment.*—The findings of the survey commission show that no uniformity exists among the several schools as to the per cent of the high-school girl's time devoted to home economics. The time allotment ranges from one to 25 periods per week. The three and five periods per week are the most generally used with either 45 or 90 minutes per period; in a number of schools 50 and 60 minutes are used. It was found that the time allotment is dependent upon a number of factors, such as the school program, size of faculty, equipment, and local needs, and in a few cases upon the Smith-Hughes requirements.



In the seven districts sampled by the survey commission it was found that the allotment to home economics of the girl's total high-school time varied from 1.3 per cent to 19.1 per cent, with an average of 9.8 per cent. In 20 additional county district high schools the average of the total allotment was 19.2 per cent. In 30 schools, including the schools of Murray, Provo, and Park City, the average was 9.1 per cent. A study by George S. Counts for 14 cities outside of Utah showed that the average per cent of the girl's total school time devoted to home economics was 4.7 per cent. The figures indicate that Utah is giving more than twice as much time to home economics in the senior high school as is found in a representative group of cities.

In the opinion of the survey commission too much of the girl's time is devoted to the actual preparation of foods and construction of clothing at the expense of the cultural aspects of the subject. More emphasis should be placed on the informational and appreciative sides which give insights, on a senior high-school level, into high standards of home and family life.

*Professional qualifications of home economics teachers.*—The home economics high-school teachers, on the whole, show professional and academic training commensurate with that of other high-school teachers; they have a seriousness of purpose that is most stimulating and encouraging.

*Curriculum in the junior high school.*—In suggesting junior and senior high-school curriculum policies, it has been kept in mind that 97 per cent of Utah's children between the ages of 6 and 16 are in school. Therefore the junior high school might well offer three distinctive types of work, namely, a general or cultural course in home economics; a survey course with prevocational objectives; and a personal regimen, or personal living course. Where only one curriculum in home economics is possible, the general or cultural course is recommended.

*Junior high school general course in home economics.*—In the junior high school the general course in home economics has two major objectives, namely, appreciation and performance. The aim of the first objective is to give girls an appreciation (1) of what it means to provide them with food, clothing, shelter, schooling, recreation, and luxuries; (2) what it means to keep them in health, comfort, and in a congenial environment; (3) what it means to furnish them with library, playground, art, and music facilities; (4) what it means to know how dependent society is upon the workers of the world for its development; and (5) what it means to protect child life by means of laws in the home, in school, in orphanages, and hospitals.



The second aim is to provide girls with performance opportunities in those daily home activities which they are likely to do. The reasons for this aim are: (1) To teach the girls to do better, and on a level commensurate with their development, their daily home activities; (2) to furnish the girls performance opportunities in the daily processes of the home for the purpose of self-exploration and not for development of skills.

The general course in home economics, divided into projects covering subject matter, laboratory, and home practice, with specific time allotments and reference to the text with supplementary readings, should be required of all seventh and eighth grade girls.

Beyond these grades it becomes optional whether the work in home economics should be required. There is a wide difference of opinion on this subject. However, agreement is fairly common that differentiation for individual differences should begin in the ninth grade.

In this respect each community needs to study the abilities of its pupils, also the information needed by them as growing youths in school and prospective citizens in agricultural and industrial communities, and "in what school grades these materials can best be utilized, their order, and arrangement within these grades."

For teaching food selection in the seventh and eighth grades Utah, because of its rural character, affords an excellent opportunity to relate the classroom food study with the feeding of domestic animals. Many of the children of junior high school age feed the pigs, calves, poultry, and lambs at home and watch with pride their development and well-being. In fact, the barnyard, chicken coop, pasture, and pigsty afford an excellent biological laboratory, and should be utilized to the utmost in directing the attention of the children to the effects of good and bad feeding.

This interest should aid in turning the children's attention upon their own "growth and weight curves," and should be the means of instituting among the members of the class a "growth and keeping fit" contest, thus demonstrating to them that "food makes the difference."

Since Utah's families have a larger proportion of young children per family than is found in many communities, a course in child care and welfare might well be offered in the eighth grade as well as a course in the managerial duties, including a study of personal and household budgets which are commensurate with the age and experiences of the girls.

*Prevocational course for the ninth grade.*—The ninth grade should offer, in accordance with the spirit of the junior high school, a survey of the field of home economics. Girls in this year should have an opportunity to make "a multitude of contacts which will



assist them in testing out and discovering abilities that the differentiated curricula of the senior high schools will further develop and mature." With this in mind, the work should be of the broadest kind, giving opportunities for "exploration and discovery rather than narrowness and thoroughness of training."

*Personal regimen course.*—The personal regimen or personal living course is designed for girls who drop out of school at the end of the junior high school and enter gainful occupations, such as department stores, factories, transportation offices connected with the telephone and telegraph services, offices, domestic service, and other wage-earning work.

These girls need information regarding personal hygiene, selection of food for health's sake, how to dress appropriately, the best way to spend their earnings, personal behavior problems, recreation, how to use leisure time for self-advancement, contributions they can make to the homes in which they live, and many other personal problems affecting the girls' daily life.

*Curriculum for the senior high school.*—Scientific curriculum making in the senior high school should be based upon the individual and social needs of its students. To ascertain what these needs are for the high-school girls of Utah, a very brief and cursory analysis was made of probable interests of girls of high-school age and beyond.

It was found that more than half of the high-school girls who graduate continue their education in some other institution. To be exact, 51.4 per cent of the girls attend some higher institution of learning, according to Bulletin, 1925, No. 4, of the United States Bureau of Education. Furthermore, the United States Census of 1920 reveals the fact that the peak of employment for girls is directly after high-school graduation, as is shown in the following: Number of women in Utah between the ages of 18-19—8,532; 20-24—19,274; 25-44—57,531; 45-64—26,948. Number of women who are employed between the ages of 18-19—2,719, or 31.9 per cent; 20-24—5,737, or 29.8 per cent; 25-44—8,111, or 14.1 per cent; 45-64—3,195, or 11.9 per cent.

The number of women in gainful occupations and the various types of employment for women between the ages of 15 and 45 are listed as follows:

- (1) In agriculture, forestry, and animal husbandry, 870.
- (2) In manufacturing and mechanical industries, 2,644. In this connection it is interesting to note that the entire foregoing group is devoted to some form of food and clothing manufacture and production.
- (3) In transportation, 945. The bulk of these women are telephone operators. About 150 are telegraph operators.
- (4) In trade, 2,454. These are clerks, largely saleswomen.
- (5) In professional services, 4,325. Of this number 2,894 are teachers; 544 are trained nurses; and 887 occupy other positions of a professional nature.



(6) In domestic or personal service (all related to some form of house-keeping), 5,431.

(7) In clerical occupations, composed of stenographers, typists, and book-keepers, 4,264.

It is clear that curriculum makers in home economics for Utah should take into account the needs common and variable to its two groups of high-school girls, namely, those continuing their education after high-school graduation, and those entering some vocation before or after graduation.

*Requirements common to general and vocational courses.*—The requirements common to the general and vocational courses may well be grouped around health and appreciation for home and family life and care of young children as the core objectives.

An outstanding need common to all the girls is that of health. Since it is conclusively established by the foremost scientists that of all the factors contributing to health food contributes the most, it is clear that all high-school girls should receive instruction commensurate with their age level in the fundamental nutritional principles, thereby helping them to fortify their own health and that of the coming generation. Secondly, all girls should be taught the contribution that clothing, housing, and sanitary living can make to the individual's health.

It is not sufficient alone to know that food, clothing, housing, and sanitary living contribute to health, the girl needs to be taught along with these facts how these essentials are made possible on the various income levels. To illustrate, it is not sufficient to teach that adequate proteins are essential to growth; it is just as necessary to teach the costs of these proteins and how they may be obtained by families of varied incomes. All principles which relate to spending, in order that the greatest satisfaction may be had from the expenditure, are paramount, and should be the possession of all girls.

*Special requirements for home-makers courses.*—For those girls preparing as mothers' assistants or home makers further courses should be offered on the economic aspects of the home, as household finance, time budgets, short cuts to household accomplishments, care of the home and its surroundings, home nursing, and laundering. They should also be given experience, if possible, in a nursery in the care of young children.

*Special requirements for vocational courses.*—From an analysis of Utah's gainful occupations for women it is found that the range of occupations is limited largely to domestic service, food production, clothing, textile and millinery industries, to saleswomen in stores, and teaching.

Vocational courses should prepare the girls for their various vocational objectives. For example, some girls will elect home economics



with a professional objective, leading to teaching before or after college graduation; others will need preparation for a specific industry, such as millinery or dressmaking, before or after high-school graduation; and still others will become home assistants or heads of their own homes.

To this latter group additional training in either millinery, clothing, or textiles, or in all three combined, with related art, personal budgets, and hygiene, will be of the utmost importance.

In closing, it is urged that home economics curriculum builders of Utah study seriously the capacities, abilities, activities, interests, and social needs of their high-school girls.

### INDUSTRIAL EDUCATION

The survey commission observed in some of the senior high schools of the State both excellent and inferior work in nonvocational types of industrial education courses. For example, in some of the rural high schools excellent work is being accomplished in auto mechanics, offered for the purpose of training in the conservation, use, and care of automobiles and trucks, and for enabling students to make minor repairs and adjustments. These courses meet a felt need and should be made available to more students. In some of the rural schools excellent work is done in farm mechanics. These courses include repair and maintenance jobs in metal, wood, and leather. This type of course should be extended to include all rural high schools. The woodwork in both the rural and urban high schools is too much of the traditional type, emphasizing unduly wood turning and cabinetmaking. In the rural schools the woodwork should have more definite application to the repair and maintenance jobs and the small construction jobs about the home and farm.

The character of the industrial work in the junior high schools of the State varies greatly with the different schools. In one large urban high school the work is well organized in accordance with the exploratory objective in the junior high school and on the basis of the general shop plan. Activities are carried on in woodworking, wood finishing, sheet metal, and electricity, and the projects are well chosen, with reference to the interest levels and the abilities of the students. The character of instruction is of a high order. On the other hand, in a school in the same city the character and organization of the work showed no such clear conception of the purpose of the industrial work, nor were the standards of accomplishment comparable. There is need for efficient supervision that will bring the industrial work in all junior high schools, both urban and rural, up to the standards maintained in the best schools.



In general, the schools of the State, both urban and rural, need to clarify and refine their objectives for the industrial and manual arts types of courses in accordance with the generally accepted aims of the secondary school. In the organization of the industrial and manual courses three definite objectives should be kept in mind:

1. *The exploratory and tryout objective for guidance values.*—Shop courses offered for the realization of this objective should include projects in a variety of activities, such as woodworking, metal work, painting, and electricity. The character and quality of the work should be on a level comparable with the interest and accomplishment level of the individual. The work should be planned not to give the first part of several trade courses but to provide the individual, through controlled experiences, with opportunities to react in connection with a variety of materials and operations, thus furnishing situations favorable for the discovery of aptitudes and interests for mechanical work. Courses under this objective deal with elementary fundamental manipulative processes in connection with common materials used in construction and production work. This work properly comes in the junior high school and should be required of all boys.

The "general shop" when well planned as to equipment and projects is an excellent organization for realizing this objective.

2. *Consumer's objective.*—This objective is for the purpose of training in the intelligent consumption or use of industrial products and services, common to home life and leisure-time activities. For example, there should be courses dealing with such industrial products as furniture, automobiles, electrical machines and apparatus, and for such industrial services as electricity, water, and gas furnished to the home. Training in connection with this objective would be for the development of intelligence and skill in (1) buying; (2) use, care, and operation; and (3) repair and maintenance work that is economical and feasible for the user to do himself rather than for him to call on the services of a tradesman.

A course for owners and drivers of automobiles and a course for both boys and girls dealing with electrical appliances and machines used in the home are examples of courses that may be given under this objective. "Appreciation" courses may be offered under this objective. For example, a course for both boys and girls dealing with furniture for the home might be given as an appreciation course and require no manipulative work. It would be for the purpose of acquiring ability intelligently to judge styles, designs, construction, workmanship, durability, and cost. For such a course there should be worked out a score card for practice in judging furniture according to points previously discussed in the course.



3. *Producer's objective.*—This objective is for the purpose of training in the production of industrial products and services—for example, courses in carpentry, power-plant engineering, and machine-shop practice. Such courses are for definite training experience in some specific trade or technical subject. They are offered as—

(1) Preemployment courses for those who have as yet not entered upon employment or who wish training in an occupation other than the one in which they are employed. Trade courses in the day trade school and opportunity school are examples.

(2) Employment courses for those who have already entered upon trade employment. Trade extension courses for those employed in specific trades for the purpose of upgrading the worker and part-time apprenticeship courses are examples.

Research work should be undertaken in the industrial field to determine the needs of the industries for industrial and technical training courses and for the purpose of developing content material for specific courses to be offered. For example, there should be conducted a study of the work done in the smelters to ascertain the feasibility of organizing technical, trade, and apprenticeship courses. It is a responsibility of the State board of education to see that such studies are made.

The State of Utah is confronted with the proposition of establishing specific trade and technical courses, in order to meet the needs of her developing industries, in a number of local school systems, or of establishing a State school under the direction of the State board of education and offering specific trade courses, as is done at the State School of Science at Wahpeton, N. Dak., and in the State trade schools of Connecticut. The question as to which of these plans would most economically and effectively meet the needs of the situation in Utah should be determined by a careful investigation of conditions by the State department of education.

The industrial work in most of the junior high schools needs to be broadened to include a larger number of activities that will function in connection with the exploratory objectives.

#### SOUND ACADEMIC WORK NEEDED

The extent to which high schools of the State have abandoned the academic fields of language and mathematics in the interest of special departments aiming at immediate vocational outcomes prompts an inquiry into the vocational ambitions of boys now enrolled in high schools. Table 16 shows the vocational preferences of boys in relation to the occupation of the father.

The chief interest of the State in its vocational education program has been the development of farm life. A comparison of the table with the United States census of occupations for Utah shows that the farm group has more than its proportionate representation in high schools, and that among high-school pupils a sufficient percentage aim at farming to give that industry its proper share of workers having participated in secondary education.

TABLE 16.—*Relation of occupation of father to boy's choice of occupation and occupational representation in high school to occupational choice—Data from 23 Utah high schools*

Boy's choice of occupation	Father's occupation and number of boys														Total	Per cent
	Farm owner	Farm tenant	Farm laborer	Business proprietor	Business manager	Business clerk	Professions—learned	Professions—technical	Public official	Trades	Transportation	Domestic or personal service	Laborer	Other		
Farm owner.....	664	21	8	18	13	15	28	52	15	52	14	6	69	5	980	33.6
Farm tenant.....	19	4		1			3	2	2	2			2		35	1.2
Farm laborer.....	17	2	3		1		1	1	2	4				2	33	1.1
Business proprietor.....	40		1	23	9		6	3	1	9			8	2	109	3.7
Business manager.....	37	3	2	8	28		8	4	3	13			1		120	4.2
Business clerk.....	26	2	3	5	6		2	1	1	15			1	12	82	2.8
Professions—learned.....	146	9	7	22	14	13	75	11	16	34	5	8	37	4	401	13.7
Professions—technical.....	151	5	6	37	20	15	21	40	27	59	16	6	129	5	537	18.4
Public official.....	5		1	2	2	2	3	1	4	3	1		5		32	1.1
Trades.....	117	4	3	5	11	5	11	10	5	70	12	4	33	2	295	10.0
Transportation.....	25		1	11	2	1	5	4		14	6	4	15	3	91	3.1
Domestic or personal service.....					3	1	1			2			3		10	0.3
Laborer.....	17	2	1		2		4	1		5	1	2	1	1	37	1.2
Other.....	49	5		6	12	5	6	6	6	10	6	3	12	23	149	5.1
Total.....	1,316	57	36	141	123	79	174	136	82	292	61	35	332	47	2,911	100.0
Per cent.....	45.2	1.9	1.2	4.8	4.2	2.7	6.0	4.6	2.8	10.0	2.1	1.2	11.4	1.6	100.0	

The professions also have more than a proportional representation and boys from other occupational groups who aim at professional service occupations multiply this representation by three. At first thought, it may seem that in a State where only 4.4 per cent of the total of occupational workers are engaged in professional service occupations, a condition that leads one high-school boy in three to look toward the professions as a means of livelihood is out of harmony with the social order. Consider, however, that the professions are closed to nonhigh-school graduates, that only approximately one child in four who enters school survives to high-school graduation and one child in three enrolled in high school who aims at professional service becomes one child in 12 selected from the population at large. Considering losses between the high school and college and between school and vocation it does not appear that an unduly large proportion of pupils have an ideal of professional service as a means of livelihood.



Such a large percentage of pupils have aims that imply extended training in the academic fields of secondary and higher education that the interests of this group can not be ignored. Consider also that Utah as a State is unusually dependent upon her own citizenry for the leadership provided through the professional service occupations, and the wisdom of such a general abandonment, as is evidenced by high-school programs, of such academic fields as mathematics and language is open to serious question.

#### SIZE OF SCHOOL IN RELATION TO EFFICIENCY

The results of the testing program show such striking differences of efficiency between large and small high schools that an examination of the differences between the two groups of county district schools promises a ready means of discovering factors which make for efficiency. Table 17 shows the comparative central tendencies of scores in the several tests used. It happens that the schools group themselves naturally as small or large schools into groups of four and five, respectively. The differences in test results are quite significant and the results for the various tests are quite consistent. The larger schools are undoubtedly securing superior results.

TABLE 17.—*The relation of size of school to educational efficiency*

School group	Mean test scores									
	Iowa, grade 12	Stanford, grade 9	Thorndike McCall reading quotients				Terman (median scores)			
			Grades				Grades			
			9	10	11	12	9	10	11	12
Four schools, average enrollment 168; range 119-206.....	103.6	13-6	84	87	83	77	81	90	89	106
Five schools, average enrollment 532; range 292-767.....	148.7	14-9	93	92.5	91.8	89.1	96	118	123	135

The Salt Lake City schools are not included in Table 17. The effect of including Salt Lake City schools with the large high schools would be to widen the differences shown. The large high schools in the county districts show a superiority of accomplishment over small schools that is comparable to the superiority of Salt Lake City schools over the average for all county schools. The city situation intensifies the differences in accomplishment that the larger schools show in comparison with the smaller schools. Test results in the Kentucky, Virginia, New York, and Texas State surveys have invariably shown lower scores in small and rural schools as compared with city schools.

When we examine the various factors that conceivably could explain the superiority of the larger schools we find that teachers in the larger schools have had decidedly more academic and professional training and they have had more professional experience. The differences are shown in Table 18.

TABLE 18.—*The relation of size of school to training and experience of teachers*

Size of school	Number of schools	Average experience of teachers in years and months	Per cent holding degrees
Over 200.....	15	5-10	78
100-200.....	6	5-11	68
Under 100.....	6	4- 3	56

When we compare the schools listed in Table 9 as to curriculum emphasis, grouping according to size as indicated in Table 19, we find a tendency to give approximately the same percentage of time to the academic and nonacademic fields as a whole. In the very small schools there is a tendency to give a higher percentage of time to the academic subjects. Obviously, the efficiency of teaching is the significant factor in outcomes rather than the time the pupil gives to a subject.

TABLE 19.—*Relation of size of school to curriculum emphasis as measured by per cent of pupil time given to academic subjects*

School group	Per cent of time given to academic subjects
Fourteen schools, enrollment range 24-206.....	56.7
Thirteen schools, enrollment range 237-767.....	55.1

Table 20 shows the relation of size of school to costs of instruction. The larger schools pay decidedly more for an hour of teaching which undoubtedly enables them to secure the more capable and better trained teachers. While they pay more for an hour of teaching, the cost of a pupil-hour of work and the instructional cost per pupil is decidedly less. This is due to the relatively narrow pupil-teacher ratio in the small schools resulting from the breaking up of the student body into comparatively small recitation groups in order to approximate the breadth of offerings of the large high schools.



TABLE 20.—*The relation of size of school to costs of instruction*

Size of school	Number of schools	Total enrollment	Total hours teaching	Total pupil-hours	Total salaries	Cost			Ratio pupil-hours to teacher-hours
						Hour teaching	Pupil-hour	Per pupil	
Over 200.....	15	5,710	130,594	3,613,566	\$327,896.00	\$2.51	\$0.090	\$57.42	27.1
100-200.....	6	861	29,327	641,676	61,236.00	2.08	.095	71.12	21.1
Under 100....	6	365	14,030	257,487	25,651.50	1.82	.099	70.28	18.0

## SUMMARY OF RECOMMENDATIONS

Gathering up the implications for efficiency from the preceding analyses, the following significant statements appear to be justified:

1. Utah has succeeded in extending secondary education to a higher percentage of the secondary-school population than any other State. Because of this, pupils from every occupation and occupational group of the State are found in secondary schools in significant percentages.

2. Grade progress up to grade 9 is comparatively high, but above grade 9 is lower than is common.

3. Survival rates for age groups are high, but a heavy mortality through grades 9 and 10 exists. The larger schools show a materially higher survival rate through grades 9 to 12 and hold a higher percentage of pupils to graduation. The fact that both failure and survival rates are higher in the larger schools indicates that the smaller schools have a materially lower percentage of accelerated pupils reflecting a greater tendency in the smaller schools to hold all pupils to a uniform rate of grade progress.

4. Actual educational progress as measured by standard tests is slow and much slower in the smaller schools than in the larger schools.

5. The teacher-salary cost per pupil-hour of work is less in the larger schools, although they pay materially more for an hour of teaching.

6. The larger schools employ teachers with more professional and academic training and with more teaching experience than those employed in the small schools.

7. The nonacademic subjects tend to cost more per pupil-hour than the academic subjects. This is true in spite of the fact that music and physical education are included in the nonacademic group and the common arrangement with reference to these subjects is that a teacher meets pupils in large groups.

8. Instructional costs are generally higher where a school concentrates to an unusual extent upon a few departments, with consequent small pupil groups in several other departments.



9. Individuality in curriculum emphasis is characteristic of the schools as a whole, and numerous instances of curriculum administration characterized in (8) are found.

10. The high schools of the State have generally abandoned foreign languages and mathematics in the interests of so-called vocational departments.

11. Central tendencies of mental ability as measured by the Terman group test of mental ability are low. The distribution of mental ability is a very near approach to the normal-frequency curve of distribution. The range of ability is wide, with higher than usual percentages in the low-ability range.

Remedial measures which can be suggested with some certainty that increased efficiency will result are:

1. The centralization policy of the State, which has already resulted in elimination of very small (under 75) high schools to an unusual extent, should be continued; and further centralization of schools, with developing means of transportation, should be effected. The superiority of the larger schools of the State from the point of view of instructional costs, breadth of curriculum, and educational outcomes is marked. Developing communities in near proximity to established high schools which demand a local high school, out of civic pride, should understand that they may demand an inferior secondary education for their children and add needlessly to the State's burden unless they can assemble a secondary pupil population of reasonable size.

2. The success of the State in enrolling in secondary schools such high percentages of the total population has made the secondary schools of the State much less highly selective institutions than is common. The inferior educational status grade for grade of Utah high-school pupils is undoubtedly due in part to the lowering of the degree of selection from the population at large. Children from every occupational and social group of the State are represented in high schools in significant percentages. The spread of ability is extremely wide. The life purposes of the children are as broad as life in the present social order. It must be recognized that these children come into the high school with highly varied attitudes, habits, ideals, and knowledge possessions. These possessions of entrants must be the point of departure in secondary education. The curriculum experiences which will insure appropriate learning on the part of this variable group must also be varied. The State has recognized this need and has broadened the secondary program of studies. But the question of what a given group of pupils, with given abilities and stated purposes and interests, should be offered by the school has been largely a matter of individual guessing. The general result has been



the emergence of secondary programs that reflect the individual bias of administrators and of special department supervisors attached to the staff of the State department of education. Outcomes have been made uncertain and generally inferior in academic fields, and instruction has been made needlessly expensive. The situation shows a decided need for a unifying force in secondary education such as could be exerted by a State director of secondary education to whom all special supervisors would be responsible. The State department of education has recognized the situation and has combined the offices of State high-school inspector and director of vocational education, making general direction of secondary education the responsibility of one man. Further suggestions for organization of State supervision are made elsewhere in this report. Adjustment should be made certain through organization of a state-wide research program having secondary curriculum adjustment as its purpose. Such a research program should call into cooperation under the direction of the State department available talent from the schools of education and from local school systems, and should concern itself with both curriculum materials and curriculum administration. Suggestive procedures in such a research undertaking have been developed by Bobbitt in his Los Angeles effort, by the State department of education of Missouri, and by Denver, Colo.

3. Given sufficiently large school units, which make high schools of the comprehensive type possible at bearable cost, and given subject syllabi, which are the product of tested experimentation, little guaranty of desirable educational outcomes exists except through effective, unifying local supervision of teaching. The more successfully the secondary school adapts its program to the varying needs of different pupil groups the more complex it becomes and the greater the need for the unifying and directing influence of wise supervision of teaching. Supervision of teaching in Utah high schools has come in the past through the State department, the district superintendent's office, and the local principal or supervisor. Supervisors from each of these units have dealt directly with teachers, and supervision from the State department has been chiefly that of special supervisors in the fields of agriculture, industrial education, and home economics. Where teachers are supervised from several different sources and where local administration is affected by supervisors interested exclusively in a particular department the tendency is toward the development of unbalanced programs and against the coordination of effort of all departments of a school in the interests of the general objectives of secondary education. In the interest of proper curriculum administration, supervision from the State department should function through local administrative officials and not



through individual teachers. It should concern itself with such matters as (1) the subjects which should find a place in the program of studies; (2) time allotment to subjects; (3) the organization of the subject matter of courses into teaching units; and (4) with a general technique of teacher and teaching supervision. Actual supervision of the teacher and of teaching should be made the exclusive responsibility of the local supervisor. In the smaller high schools local supervision should be the responsibility of the high-school principal and the State and the district superintendent's office should concern itself with seeing to it that he is made a good supervisor. In the larger high schools, or where one individual can serve two or more schools, supervisors may be employed who are responsible to the principal. In the employment of supervisors the principle that general supervision concerning itself primarily with coordination of teaching effort, the testing of the results of teaching, and general teaching procedures should come before more intensive supervision of special departments should be observed.

4. The State should complete the transition it has begun from the 8-4 type of organization of elementary and secondary education to the 6-3-3 type of organization as expeditiously as economy will warrant. The data on failure and survival show a lack of articulation between elementary and secondary education and a consequent failure of a high percentage of pupils to adjust themselves to the demands of the high school. Until the State so articulates elementary and secondary education as to overcome the excessive failure and mortality of the first two years of the high school it can not hope to materially raise the percentage of pupils participating in the education afforded by the senior high school grades.

With the growing complexity of secondary schools, in response to the need for providing for a wider range of pupil needs, there is an accompanying increase in the need for systematic pupil guidance if the possibilities of the more complex program for ministering to individual pupil needs are realized.

The junior high school has developed in the United States because it is believed to be an agency through which secondary education may be made less selective and more democratic. The essential characteristics of the junior high school are:

1. It makes adjustment to secondary education requirements easier through providing a gradual rather than an abrupt transition from characteristic elementary to characteristic secondary school programs. It does this by carrying certain portions of the elementary curriculum in diminishing quantity through grades 7 and 8 of the junior high school and carrying down certain portions of the secondary curriculum in diminishing quantity into grades 8 and 7 of the junior high school.



2. It makes it possible for the child to benefit from the complex secondary education program of studies through introducing general courses, such as general science and general mathematics in grades 8 and 9 which give acquaintance with the special fields of the senior high school curriculum. These general courses, supplemented perhaps by short unit courses from special fields of the senior high school curriculum and by systematic guidance efforts, make the child's choice of specializing courses related to personally appropriate occupational purposes much more intelligent.

3. It throws the child at adolescence into a suitable school social environment, giving him an opportunity to develop such capacities for social leadership as he may possess.

4. Through flexible promotion plans it increases the opportunity for the child to make such educational progress as he is capable of making and results in shortening the period of nonspecializing education. As a State, Utah needs to complete its transition to a junior-senior type of organization of secondary education. The State has already practically eliminated the very small senior high school. Very few schools of the State provide less than eight special departments of work. Pupils may choose from a broad range of offerings. Without an adequate program of adjustment and guidance the possibilities of the broad program for democracy in secondary education become dangerous tools of educational and vocational predestination and the additional expense of maintaining the broader educational program has little if any justification.

Due to the existence side by side of 8-4 and 6-3 3 types of organization by years the junior high schools of the county districts of the State, with few exceptions, are junior high schools in name only. They are departmentalized seventh and eighth grades. Grade 9 is yet the first year of a four-year school. Practically no curriculum adjustment has followed the reorganization and no systematic guidance program is in effect. Grade 9 has not been made a part of the junior high school cycle, but remains the first year of a four-year high school. The schools have not been equipped with laboratories or shops and aside from losing the values of a junior high school the first year of the four-year high school has been made inferior. There are exceptions to this statement, but the situation, in general, is as described. The State will avoid the danger which now exists of discrediting the junior high school as a type of school organization by bringing about proper curriculum adjustment in the junior high schools now established and by completing the transition under way at an early date. Much of the failure to adjust the curriculum is due to the present dual system in the State.

5. An adjusted curriculum, instruction better adapted to individual differences, and the increased possibilities for adjustment



through a proper junior high school organization must be accompanied by a general reorganization of the promotional machinery of the high schools if the full possibilities of realizing on individual differences of pupils are to be secured.

The present lock step which holds practically all pupils to the same rate of grade progress and results in accommodating the rate of learning to the pace natural to pupils of comparatively low ability is the chief source of economic loss to the State incident to the present secondary education program of the State.

The principal cost to the State of the secondary education program is not the actual cost of operation of the high schools. It is the cost of maintaining children in a state of economic unproductiveness through a longer period of infancy.

If the secondary schools are so organized that individual children can make such progress in learning as is natural to them, the low ability groups will move at no slower than the present rate while the superior children will move at a faster rate. If the upper 25 per cent of children can be given in 11 years the quantity of education they now receive in 12 years, their life as producers of goods of value will begin a year earlier. The State will be saved the expense of maintaining them in unproductiveness an additional year and it will gain the value of their productive efforts for a year. This should hold whether the child enters industry at high-school graduation or after a period of higher education. It would indeed be a conservative estimate to assume that 25 per cent of the high-school population could produce sufficient wealth in a year to operate the entire secondary education system.

It does not matter whether the effect of speeding up educational progress is considered from the point of view of the same grade status in a shorter period of time or from the point of view of a better actual educational status through an enriched curriculum in the same period of time. The result is the same. The State profits by the actual learning resulting in the period of time through which the child is being educated. Organization that will speed up real educational progress by releasing superior children from the present lock step of uniform progress affords a real opportunity for economy to the State of Utah.

Extensive literature is available concerning administrative adaptations to individual differences in large high schools which are applicable to Utah high schools. Principals should study this literature and immediately attack the various problems of internal organization of the high school, with a view to provision for unequal rates of progress.



Those responsible for administration of small high schools may secure the effect of segregation of ability groups through a system of variable assignments to groups of pupils or to individuals and through instituting a flexible program as to time of promotion by subjects.

In this connection it should be remembered that the methods of mass instruction were developed in response to demands for economy and the pressure of numbers. In the small high school the methods of mass instruction assigning a teacher to a group for a fixed period of work in a specified subject may reduce the number of pupils receiving instruction from a teacher below that which he could handle on an individual basis. Careful experimentation with the methods of individual instruction should be conducted in small high schools.

6. *Hygiene and physical education.*—*a.* A systematic physical examination of all high-school pupils should be made annually.

*b.* Adequate efforts should be put forth by the school to have all correctable defects and unhygienic habits removed.

*c.* The teaching of hygiene and physiology, including personal, home, and community health, should be presented to all students in a thoroughgoing manner for at least two periods a week throughout the junior and senior high-school courses.

*d.* Intramural sports for both boys and girls should be further developed and carefully directed. One period a day should be devoted to physical education of some kind.

*e.* Better professional preparation should be required of teachers of physical education and especially of those who coach athletic teams.

*f.* The State school athletic association should see that inter-school sports are not overemphasized and that these are properly coordinated in the general scheme of physical education.

7. *Home economics.*—(1) That a study of equipment should concern itself with economy of floor space and with the advisability of providing additional facilities required for child care, the teaching of laundry, and other household tasks typical of Utah.

(2) That additional illustrative material and library facilities be provided.

(3) That the time of home economic teachers given to activities which do not contribute to educational purposes be reduced.

(4) That curriculum making for the junior and senior high schools be based upon a scientific study of the individual and social needs of the girl, and that the home economics offerings in secondary education meet both the common and variable needs of the high school girls. To illustrate: That the junior high schools, where



possible, offer these differentiated curricula—(a) general or cultural, (b) survey with prevocational objectives, and (c) personal regimen; and that the senior high schools offer two types of curricula: (a) general or cultural for girls continuing their education after graduation, and (b) vocational for the immediate prospective homemakers, home assistants, and for those girls entering gainful occupations before or directly after graduation. Where only one course is possible in either the junior or senior high schools or both, the general or cultural curriculum is recommended.

(5) That the State course of study offer ample suggestions of subject matter, laboratory practice, and illustrative material in such form that cohesion and uniformity of home economic principles may become possible.

(6) That the junior high school work in home economics be based definitely upon preceding work.

8. *Industrial education.*—a. Courses in auto mechanics of the type now found in some of the better rural high schools should be made available in many more centers.

b. Properly organized courses in farm mechanics should be extended to all rural high schools.

c. Woodwork courses in all types of high schools should be more definitely related to the repair and maintenance jobs and the small construction jobs about the home and farm.

d. There is a decided need for efficient supervision of industrial work in junior high schools both urban and rural as a means of bringing the work up to the standards now set in the best schools.

e. There is a decided need for a more careful statement of the specific objectives of industrial and manual arts courses. It will be helpful to group these objectives as objectives having guidance value, objectives concerned with intelligent use of industrial products, and objectives concerned with efficiency in production of industrial products.

f. Research should be undertaken in the industrial field to determine the needs for specific industrial training courses.

g. The relative desirability of introducing specific trade and technical courses in a large number of high schools and the establishment of a State trade school should be carefully studied.

h. In the interest of properly developed and coordinated programs in the larger independent city systems there is need for full-time special supervisors of industrial education.



## Chapter VI

### LOCAL SUPERVISION—ITS IMPROVEMENT THROUGH A STATE-WIDE SUPERVISORY PROGRAM

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#### GENERAL INTRODUCTORY STATEMENT

Supervision of instruction is an essential factor in modern school systems. There was a time when the superintendent divided his efforts between administrative work, such as housing and financing the schools, providing teachers and a proper accounting of pupils, and problems of classroom instruction. With the present complication of administrative problems it is practically impossible for a superintendent either to devote actual time to classroom visitation and subsequent "follow up" conferences or to keep himself informed and capable of carrying on such a highly specialized work as the supervision of classroom instruction.

Inadequate training of teachers and the short term of professional service given by the average teacher present an immediate need for expert assistance to teachers in the field. The constantly increasing number of children cared for in schools and the demands for an education to fit these children adequately to meet present-day problems require specially trained supervisors of instruction, even when prepared teachers make up 100 per cent of the teaching staff. An efficient program of education includes plans for grouping children according to their abilities, provision for constructing curricula to meet children's interests and skills at different levels of age and experience, conferences for stimulating teachers to regard their work as "a fascinating profession" full of opportunities to make unique and valuable contributions, meetings for informing patrons about modern trends in school practice, and organization of materials of instruction to meet changing needs. Such a program for the improvement of teaching very evidently is sufficient to demand the undivided attention of an individual. This, in brief, is a supervisor's field of work.

As specialization in different fields of education becomes more prevalent, further division of supervisory responsibilities is becoming customary in State, county, and city organizations. The work with children from 4 or 5 to 8 years of age, carried on in kindergartens and the first three or four grades, constitutes the kindergarten-



primary unit. Grades four to six or four to eight, dependent upon possible junior high school organizations, constitute the intermediate school unit. With the increasing provision of junior high school work for seventh and eighth grade pupils there will tend to be better coordinated elementary and secondary supervisory units in school systems. If unwieldy in size, assistants may carry the supervision of the smaller units.

Utah has a very evident belief in the value of supervision. This is shown by the fact that in the State department of education, in the city districts, and in 16 of the 35 county districts general or special supervisors or both are employed. In general, conditions for supervision in Utah are favorable. The administrative organization provides the necessary machinery for the employment of professionally trained supervisory assistants to the superintendents, wherever the financial burden can be met locally. In a large part of the State travel conditions are relatively good; so that little time need be consumed in reaching schools and teachers. In most instances, supervisors are provided with some travel expenses and clerical service which, while not sufficient, compare favorably with that allowed to rural supervisors in other States. Teachers' meetings can be held with relative ease and frequency. Other factors conditioning the work of supervisors, such as the possibility of frequent visits to teachers, concentration of teachers in few buildings, general equipment, such as supplementary readers, primary and other elementary grade working materials, and the like, are above the average for schools outside of cities in surrounding States.<sup>1</sup>

The weaknesses observed in supervision in Utah are due largely to general lack of economic and efficient administration in a system potentially good. For the State as a whole, the staff of supervisors is inadequate in number. Many districts have none; others have altogether too few supervisors or supervising principals; so that the supervisory load, measured by number of teachers or pupils, is too heavy for high-class work. The prevailing tendency to assign supervision of the elementary grades to a "primary" supervisor and that of the high-school grades to the superintendent, without regard to the needs of the system measured by the number of teachers and by the demands of administrative work, is generally a mistaken policy. It is impossible to say here how many supervisors are needed for a given number of teachers in a State like Utah. Matters of roads, distances between schools, size of schools, and the like are qualifying factors. Each district is a study in itself. A county superintendent with more than 30 teachers distributed over a large district needs supervisory assistance approximately to the extent of one supervisor

<sup>1</sup> Based on comprehensive questionnaire studies, full returns of which are not included.



to each 30 or 40 teachers in addition to the first 30 teachers. Though no Western State has as yet determined a standard number of teachers per supervisor, it is interesting to see that Maryland has set the goal at 40 teachers for a supervisor. Connecticut averages about 20 teachers per supervisor. In both States one and two room schools are far more prevalent than in Utah, and fewer teachers per supervisor are desirable.

Considering supervision in practice in Utah, the greatest need is for setting up higher standards for supervisory officers and for improvement in the quality of the service. Minimum essentials for an efficient State supervisory program should include at least the following:

I. Adequate standards for supervisors: (1) Of training and experience set up by the State's certificating service; (2) of personality, leadership, organizing and administrative ability set up by the employing agencies, namely, superintendents and boards of education.

II. Definite agreement concerning the lines of authority and responsibility of supervisory officers, State and county district superintendents, State and county district general and special subject supervisors, principals, and teachers.

III. Adequate educational objectives set up and understood.

IV. Well-organized plans and programs of work to meet the needs of the schools, both long term covering a period of years, and immediate covering current problems.

V. Teachers initiated into the available help they may expect from supervisors and held responsible for profiting by such proffered assistance.

#### I. ADEQUATE STANDARDS IN QUALIFICATIONS OF SUPERVISORS

Adequate standards of training and experience of supervising officers should include as minimum requirements: Graduation from a standard institution of higher learning representing full four years of training, academic and professional—generally denoting holding of a bachelor's degree—or its equivalent, including in all cases courses in supervision of instruction and school administration satisfactorily completed; successful teaching experience of at least two years in the type or types of schools to be supervised. Experience in supervision should be required in fulfillment of all but minimum requirements.

The survey staff found a very general lack of adequate *special* training for supervision in Utah and a consequent loss in ability to practice modern methods in the supervision of instruction and in teaching. (See chapters on elementary and secondary education.) There is a tendency on the part of school officers to believe that



any successful teacher will be a successful supervisor. Successful teaching experience is an important qualification, but in itself is not sufficient to guarantee successful supervision. The supervisor must have professional training superior to that of teachers under his supervision, must have broader scholarship, wider professional and educational outlook, and must excel in keenness of observation to discover problems and propose remedies. The supervisor must have qualities of leadership; administrative ability and aptitude; initiative; ability to organize plans and check results; ability to grow professionally and to promote growth on the part of others. The State department of education, superintendents, and boards of education, the higher institutions of learning which offer courses for supervisors, should cooperate in setting up and maintaining high standards and improving them from time to time as conditions warrant.

## II. LINES OF RESPONSIBILITY AND AUTHORITY IN SUPERVISION

The general line of authority in supervision is from the State superintendent to the State director of supervision and State supervisors, to the district superintendent, to the district supervisor, to principals, to teachers. This general line of responsibility, with the proper functions of each supervisory officer, or a substitute program agreed upon should be clearly understood by all officials concerned. The following suggestions may guide in the formulation of a State supervisory program:

### LINE OF SUPERVISION RESPONSIBILITIES AND AUTHORITY IN THE ALLOCATION OF DUTIES AMONG THE STAFF

(A) *The State superintendent.*—Establishes policies formulated with the cooperation of his staff. Is represented in the field by the director of supervision and State supervisors.

(B) *The State director of supervision and State supervisors.*

(1) Carry out the policies of the State superintendent and act as his representative with local superintendents, supervisors, and principals, as they in turn work with principals and teachers; demonstrate with the teachers for the benefit of the local supervisor, focusing upon the professional needs of the local supervisor; assist in planning district programs or coordinating district with State supervisory programs and checking the results; provide certain minimum essentials which may act as unifying agencies for all districts in the State; take the lead in coordinating the work of general and special-subject supervisors.

(2) Represent the State superintendent in relations with the local supervisors at the instance of the local superintendent. In this



capacity the State supervisor acts more as a leader and guide and less as one planning definite procedures and checks on the children's learning, more as a training teacher for the supervisory officers in service and less concerned with local practice, more concerned with policies than with immediate plans and methods; assists in planning in-service training for teachers in the local system; assists local supervisors to plan for unity and variety of activities while avoiding duplication of material furnished by the State or gathered from other sources; suggests characteristics of legitimate community work for local supervisors, explaining the place, extent, and relation of such activities to school work.

(3) The State director of supervision and State supervisors act in an advisory capacity to the State superintendent, devising general administrative plans for promoting better supervision and better supervisory programs throughout the State. This advisory service may include setting up plans for differing situations, as supervision in districts having large schools with several teachers, supervision in districts having many small schools widely distributed; suggesting combinations of positions such as that of superintendent and high-school principal in certain small districts, or, in certain instances, combination of districts (having few schools and teachers) for supervisory purposes; determining supervisory needs of districts where classroom visitation, demonstration, and the like, are difficult and setting up a program suitable to such conditions; holding State or sectional conferences or short courses for supervisors and superintendents for the purpose of discussing educational policies, and for giving general directions or demonstrations on such topics as "How to conduct a teachers' meeting," "How to analyze a recitation," "How to study classroom practice through stenographic reports."

(C) *The local supervisor.*—(May apply to county superintendent, supervisor, or principal). Carries out the suggestions of the State supervisors; interprets these suggestions in the light of local problems; unifies the district school activities and curricula; coordinates the work of special supervisors (if any), principals or other officers through whom supervisor works with teachers; conducts and advises concerning in-service training for principals and teachers; carries on continuing follow-up and checking of achievement programs among schools and teachers.

*General and special subject supervision.*—An economic program for supervision, especially in the type of school systems generally found outside of cities in Utah, should give first consideration to general supervision. A balanced curriculum in which each of the subjects in the elementary school course has its proper place as to



emphasis, time distribution, and the like, is a primary objective of supervision. If the system is one in which one supervisor only is employed, that supervisor should be a general supervisor capable of directing the teaching of both regular and special subjects, where special-subject teachers are not employed (as in the small schools); and of directing the special-subject teachers and coordinating their work with the general program of studies where special-subject teachers are employed (as in larger schools).

In the larger systems where special-subject as well as general supervisors are employed, the special-subject supervisors should be trained in principles of general supervision and in the supervision of their special subject or subjects. It is the function of the general supervisor (or superintendent in some instances) to coordinate the work of all supervisors, general and special. The dangers are that small systems unable to afford a sufficient number of supervisors may in the employment of special supervisors sacrifice the general supervisory program; that the functions and objectives of the two kinds of supervision will not be definitely understood; that a supervisor with a strong personality or an aggressive attitude may promote his special subject at the expense of the general program; and that chaos will result in the mind of the teacher who tries to promote a balanced classroom program of achievement.

School music offers an illustration of unsatisfactory results following unorganized supervisory programs in Utah. There is unusual interest in music among the people of the State, and commendable efforts are made to promote musical education through the schools. Relatively a large number of music supervisors and special teachers of music are employed. Yet the results are unsatisfactory. Much of the music heard in schools or in school entertainments is poor in quality of performance and in selection.

In spite of the large number of music supervisors, relatively little time is devoted to music supervision, either in high school or elementary grades. "Supervisors" are often music teachers who have little time or opportunity to supervise the teaching of music in the schools to which they are assigned. A study of replies to questionnaires sent to general and music supervisors (a list of the latter was furnished by the State department of education) indicates that an undue proportion of the time of music supervisors is devoted to community work (other than extra curricular activities), to direction and instruction of bands and orchestras, usually in high schools only, and to private-pupil instruction. All of these activities are good in themselves. They detract, however, from effectiveness of supervision when they consume an undue proportion of the time which a supervisor devotes to professional duties. They are apt to be



- unduly concerned with the interests of a few at the expense of those of the large group for which the supervisor is responsible, or to center attention on work which is contributory to but not the major responsibility of music supervision.

Returns from the questionnaire study referred to show the following:

Median time devoted to classroom supervision—	Per cent
General supervisor.....	51
Music supervisor.....	20
Median time devoted to teaching—	
General supervisor.....	0
Music supervisor.....	20
Median time devoted to community activities—	
General supervisor.....	3
Music supervisor.....	10.5

High-grade general supervision would result in more satisfactory outcomes of music instruction and better balance in supervisory and curriculum emphasis. Standards set up for musical productions and school achievement would be more apt to be of high grade and adapted to the children's age and capacity with good general supervision.

In general, training in music (as in the other arts) in the elementary school has for its objective the expression of ideas, the clearing of impressions gained through other school subjects and experiences, appreciation and understanding of music, development of taste and discrimination between good and bad music, and the like, as well as intelligent performance.

*Supervision by principals.*—In general, principals of elementary schools are not held responsible for supervision, though there are some notable exceptions and some schools in which excellent supervisory work by principals was observed. This is apparently due to these facts: (1) Nearly all elementary school principals teach all or a large part of their time; (2) relatively few are prepared by training and experience to supervise elementary schools. These conclusions are drawn both from observation and from the results of a questionnaire study concerning principals' training and activities. Table 1 shows the training, in addition to high-school graduation, of 419 principals distributed among the three types of schools indicated. Apparently only about 25 per cent of these principals have met the requirements which all supervising officers should meet in general education, namely, completion of four years of college work and a bachelor's degree. Returns from another part of the general questionnaire referred to above concerning the percentage of principals who have pursued college courses in administration and supervision show that, while principals in the larger schools with free



time for supervision have pursued some such courses, relatively few of those now teaching in the smaller schools who have not free time for supervision have done so. This, of course, is exactly what is to be expected. Those who are primarily teachers would naturally be more interested in preparing for teaching than in preparing for supervision.

## PRINCIPALS

The table here given shows the percentage of total number of principals in each class of school listed below having the amount of training indicated, in addition to high-school graduation.

TABLE 1.—Percentage of principals having training indicated

Kind of school	Less than one year	One year	More than one year and less than two	Two years	More than two years and less than three	Three years	More than three years and less than four	Bachelor's degree	Master's degree	Doctor's degree	Number of principals
Two-teacher.....	3.3	8.8	8.8	40.0	26.6	6.6	2.2	3.3	—	—	90
Three-teacher.....	2.8	8.5	20.0	32.8	15.7	11.4	8.5	0	0	0	70
Four or more teachers.	.3	2.7	8.5	13.5	22.7	10.4	13.1	23.5	5.0	0	259

Of 426 principals in schools of two or more teachers concerning whom facts were collected as to free time for supervision, 322 were full-time teachers, 14 full-time supervisory and administrative officers; 35 principals are free for supervision half time or more; 55 principals have some but less than half time for supervision. Supervision, then, can be expected from 49—that is, 14 plus 35—of the 426 principals reporting. The other principals spend all or the bulk of their time (more than half) in teaching.

Consolidation of small schools into larger ones has progressed in Utah to the extent that principals should be responsible for carrying on a large part of the district's supervisory program. They should, of course, work under the direction of and in cooperation with the district's supervisory officer, namely, the superintendent or supervisor. They should be adequately trained, as recommended for all supervisory officers and should be free from teaching duties half or full time, according to the size of the school or the number of teachers under their supervision. State supervisors and county district superintendents and supervisors, in the formulation of their programs, as suggested above, should determine the principal's place in the program and his duties. Details of the program should be based on local conditions, such as size and distribution of schools; on resources, such as qualifications of principals, number of superior teachers, etc.; and on needs, such as training, experience, ability of teachers, etc.



Standards of the supervision itself and of the qualifications of supervising officers should be maintained whether supervision is done by superintendents, supervisors, or principals. In some counties in the United States in which there are a number of large consolidated schools presided over by principals qualified for supervision the county or district supervisor becomes a director of elementary education, working largely through principals who are responsible for carrying out the supervisory program in their respective schools.

Improved practice in local supervision in Utah is dependent on a clearer understanding of definite lines of responsibility and coordinated programs in which all supervisory officers participate understandingly.

### III. THE OBJECTIVES OF SUPERVISION IN LOCAL DISTRICTS AND THEIR ACCOMPLISHMENT

The function of supervision is "to surround the child with those conditions most favorable to learning by working through the teacher." This implies at least the following:

- (1) Provision for growth in service on the part of teachers and resulting improvement in the quality of instruction.

- (2) Intelligent use of the State course of study including the selection of subject matter to be taught together with its organization into units of work. This is essentially a supervisor's problem.

- (3) Determination and provision of tests and measures of pupil achievement and teacher growth with directions for their intelligent use. These should be regarded as intimately related to the selection and organization of subject matter as supervisory objectives.

- (4) Provision for desirable unification of school practice so that certain minimum standards will be observed in all schools.

- (5) Establishment of an esprit de corps among the groups of professional workers and within the groups. This promotes desirable contacts which broaden and intensify the professional outlook of teachers, supervisors, and administrative officers.

- (6) The supervisor who has a larger outlook has an opportunity to stimulate teachers to experiment in school practice, to cooperate in making scientific professional investigations, to observe and check the value of school and administrative policies and the like.

The accomplishment of objectives as suggested above implies on the part of the supervisor some participation in administrative functions either as adviser to the superintendent or through the exercise of authority delegated by him to the supervisor. Such administrative or semiadministrative duties include:

- (1) Assisting in the selection, placement, and transfer of teachers and principals.



(2) Recommendations in the purchase of supplies and equipment, both as to kind and amount, and in their distribution and transfer among schools as needed and situations merit.

(3) Organizing and conducting principals' and teachers' meetings, conferences, and the like.

(4) The command of easily available facilities for communication with teachers and principals. This includes clerical help, mimeograph facilities, and transportation.

#### IV. PLANS AND PROGRAMS OF WORK

The accomplishment of the objectives of supervision indicated above requires definite plans of intended procedures which function for effective distribution of supervisory effort, for the improvement of classroom activities, and of teaching skill. Program procedures should be planned in detail, but in such a way that adjustment to problems arising day by day are possible. Not every school problem can be met in one month or in one year. Supervisory programs must, therefore, be of two kinds, the forward-looking program extending over a period of years, and the immediate program designed both to meet immediate needs and to take its place in the larger program. Whether immediate or forward-looking, such programs cast their weight for or against informal or rigid methods of teaching; for or against dynamic or static attitudes toward teaching; for or against modern or traditional practice; and for or against definite or aimless organization of classroom work.

With few exceptions, Utah has carried on supervision of instruction without adequate programs. Practically no evidence of the forward-looking program extending over a period of years was found anywhere in the State. Neither were there evidences of any but the most meager provisions for systematic in-service training for teachers. Increased efficiency of the school systems of Utah is dependent in large part on the ability of supervisory officers to train teachers in service.

The first essential in the supervisor's program of work is systematic and continuous training in service which is contributory to a part of the general program. Other outstanding characteristics of a good supervisory program for Utah based on needs as observed would be:

1. That it engage the interest and secure the cooperation of all teachers, principals, supervisors, and superintendents of the system.

2. That it select or provide for the selection of pertinent problems in classroom management and teaching for special emphasis during a given period.

3. That it organize for efficient use the resources, facilities, and materials at hand for improving school practice.



4. That it provide means and directions for systematically checking and recording results of activities.

5. That it afford definite opportunities for the exercise of initiative and professional growth of teachers.

Mimeographed circulars are used in abundance by supervisors in Utah—an indication of the interest taken in supervision and of the effort which is being made to keep classroom practice in line with progress throughout the country. A careful analysis of a quantity of this material was made by survey staff members to supplement their observations with special reference to the conformity of the supervisory methods practiced to the above "characteristics" (really supervisory principles).

1. *Engaging interest and securing cooperation.*—A supervisor's program must be definite and fully understood by teachers in order that it be intelligently followed. Supervisors must deal with a group of teachers, whose training varies greatly in amount and extent. Programs of work with details concerning procedure must be as varied as the ability, training, and experience of teachers. Circular letters show no evidence of differentiation to meet this situation. No special appeal is made to the novice and to the experienced teacher so far as can be judged by examination of circulars.

There is little evidence of systematic cooperation in carrying out the local supervisory program through principals and superior teachers nor of intercounty cooperation among supervisors in the improvement of methods or the use of materials. Local supervisors have such help as State supervisors can give when their rather full program of work in unsupervised counties permits.

There is little evidence of cooperation between general and special subject supervisors and teachers; as a result there is little correlation of subjects or of understanding of the ways in which learning is strengthened by expressing ideas through several media, for example, that reading, writing, drawing, modeling, and music contribute to a clearer understanding of geography, civics, and history. On the whole, supervision needs considerable strengthening in the directions indicated.

2. *Selection of pertinent problems for concentrated attack.*—Intelligent analysis of any school system usually results in the discovery of types of work which need special attention or problems which need special emphasis. This placing of special emphasis on a few subjects or problems does not mean that the regular program is neglected. It means merely that special attention to a few things at a time usually has better results than efforts to remedy too many things at once. In Utah the field of primary reading was the only



one in any district which apparently had been selected for special emphasis. Some very excellent directions for improving reading were given in the circular materials, for example, the following, "A great many children are not reading smoothly enough, showing a need for a better eye span." Definite remedies for increasing the length of eye span were then suggested.

Concentration of attention on particular subjects and outstanding weaknesses in the different systems with improvement in method of attack are very evident needs in all districts. In the selection of the problems for attack and in directing remedial measures, unworthy aims, arbitrary demands, and indefinite directions are characteristic of the circular materials. Contrasts of worthy aims set up and definite directions for their accomplishment on the one hand and arbitrary demands and indefinite directions on the other are apparent by comparing the preceding example with the following from another circular. The problem is the improvement of writing. Citation: "Our aim for the next 12 weeks is to have 100 per cent Palmer button owners. Let your pupils feel that they are aiming at something, not merely practicing writing drills each day." An example of indefiniteness and incompleteness in directions for improving arithmetic: "Follow the text, page by page, and develop the principles as the author presents them."

3. *Organizing facilities, materials, and resources for improving school practices.*—Materials and resources for improving school practices include teachers' conferences and meetings; series of circulars and bulletins; demonstration lessons followed by discussions or the supplementing of stenographic reports as a basis for discussion; classroom visits followed by conferences, lesson analyses by the supervisor, direction of teachers in lesson analysis, and the like. Some use of all of these resources except stenographic reports was observed in Utah or found in the circulars. More use should be made of demonstration lessons given by superior teachers, of constructive analysis of lessons, of definite suggestions for teaching the fine and industrial arts, and attention given to defining their place in the elementary school program, of defining for teachers the means for determining weaknesses and strengths in lessons taught and observed by teachers, and especially of classifying pupils on the basis of individual needs and abilities.

4. *Provision for checking results.*—School activities which are worth carrying on are worth checking for accomplishment, whether they are concerned with pupils' achievements, teachers' progress, or the supervisory program itself. On the whole, the survey staff found a fairly good understanding of the necessity of objective standards for evaluating classroom work. Standard tests and measurements are used to a considerable extent, although definite



follow-up provisions through remedial suggestions were not generally found. Good reading checks predominate over those for any other subject. Only one supervisor suggests either checks or time allowance for self-initiated work on the part of the children. Some checks found were of a rigid and categorical nature.

Several districts in Utah have organized plans for rating teaching efficiency. In one district a rating card used, headed "Factors in good teaching," listed these factors: General conditions, the teacher, the pupils, instruction, discipline, and recitation. Suggestions of desirable achievement under each were given. In another district the evaluation of teaching was made under topics grouped as housekeeping, health habits, personal activities, discipline, subject matter, and care of materials and supplies. A third district offered the teacher a self-rating card on which 60 points were distributed among items, in question form, concerned with teaching ability and personality.

The basis for checking a supervisory program is found in the evaluation of teacher and pupil progress. Results of a supervisory program should be checked as carefully as are those of any other activity.

5. *Opportunity for the exercise of initiative and professional growth of teachers.*—More challenge to teachers and more opportunity for the experienced teacher to carry on original study of curriculum and classroom activities could well be provided in Utah. Observers found no evidences of experimental procedure or of efforts to evaluate practices, even when some questionable ones were common, supported by opinion only. There was little evidence in Utah of definite plans for using superior teachers as a means of raising the quality of the whole group. The development of the experimental and scientific attitude toward classroom procedure is eminently desirable in school systems. Incidentally it affords an opportunity to superior teachers to develop leadership in professional attainment within their own group.

#### V. WHAT CLASSROOM TEACHERS MAY EXPECT FROM SUPERVISION

Supervision is a continuing process of directed growth. It is not just meeting and overcoming weaknesses, it is primarily developing potentialities. When an individual expects to "get" or "receive" anything there is an accompanying corollary implied or stated "to give" or to "respond." It is as possible to apply the mechanistic theory of "stimulus and response" to adults as to children. The supervisor giving the best service provides stimuli for teachers in many kinds of educational and personal endeavors, the teacher co-operating in the most effective way and giving the most efficient class-



room service responds to the stimuli. Defining goals and procedures is a cooperative affair between the officer proposing the idea (the supervisor) and the officer putting the idea into practice (the teacher). This relationship provides for a decided give and take in a decidedly democratic situation.

The classroom teacher has a right to expect from supervision: (1) Direct help in classroom instruction; (2) inspiration, stimulation, and opportunity for an enlarged educational and professional outlook.

(1) *Direct help in classroom instruction.*—The teacher and supervisor together are responsible for the success of the school program. Neither alone is responsible for either failure or success. In order to work intelligently in carrying out this program the teacher has a right to expect from the supervisor (a) statement and explanation of the definite objectives of the subject matter to be taught and the methods of instruction to be followed; (b) a clear understanding of the standards of attainment for the unit of the elementary grades for which she is responsible with opportunity for adaptation to individual situations; (c) leadership and training in the newer types of educational activity. This implies that the teacher may expect the supervisor to be responsible for adequate provision of supplies and material necessary for the proper demonstration of these activities; (d) visitation during class time followed by conferences, in which the supervisor definitely analyzes the strengths and weaknesses of the lesson observed and proposes remedial and progressive measures; (e) immediate and specific help to meet current difficulties.

(2) *Enlarged educational outlook.*—The successful supervisor exercises initiative in finding a variety of means of promoting the professional growth and enlarging the educational outlook of teachers. Among the most obvious of these are:

(a) Opportunities for teachers to get a perspective on the local teaching situation through visits to other teachers, both those in the same grade and building and those in other grades and buildings inside and outside the school district. A crystallization of the ideas gained in this way effected through discussion with the supervisor or the school principal following the visit.

(b) Opportunity for teachers to contribute to and attend educational conferences and conventions within the system and the State, and occasionally in the country at large, if possible.

(c) Opening new avenues for more responsible and conspicuous service, plans for wider experiences within the professional field, and the like.

(d) Advice and assistance with plans for in-service training in order that specific needs may be met whenever possible.



*Summary of recommendations and conclusions.*—Immediate needs for the improvement of local supervision are: (1) Both larger staffs of supervisors and supervisory principals, and better organization and cooperation of the staffs for effective work. Combinations and adjustments are suggested in this section. The program should be on a state-wide scale. The needs of all schools and children should be considered in its formulation. (2) Adequate standards in qualifications for supervising officials set up and maintained and salary scales commensurate with the qualifications demanded and the quality of service expected. Minimum essentials in these particulars should be state-wide in extent. (3) Minimum standards for supervisory practice state-wide in extent; these should result from combined efforts of State and local leadership and cooperation. (4) Improvement in the quality of service rendered through organized programs for supervision in each local district. These programs should (a) set up local standards; (b) provide for understanding of agreed-upon lines of authority and responsibility, State and local; (c) establish adequate objectives; (d) provide organized plans and programs of work immediate and covering a period of years; (e) initiate teachers into the supervisory assistance available and hold them responsible for profiting by it.

## Chapter VII

### HIGHER EDUCATION

#### STATISTICS OF ENROLLMENT AND COSTS

The people of Utah generally take great pride in both their public and their private colleges and universities. They feel a personal sense of ownership in these institutions and are intimately concerned about their work and welfare. This accounts in part for the fact that in proportion to population Utah has more students in college than any other State. The ranking of the States, however, with respect to attendance shown in Table 1, may not represent the situation with entire accuracy, since Utah and Nevada have no separate normal schools. Students of all types in these States attend the regular collegiate institutions of the State, while in the other States some proportion at least go to the separate normal schools. The latter have not been included in the compilation of the following table:

TABLE 1.—*Number of persons in each of 11 States and the District of Columbia to each student receiving a college education within and outside the State*

State	Number persons	Rank in 1922-23	Rank in 1920-21
Utah	99	1	4
District of Columbia	103	2	1
Oregon	121	3	2
Nebraska	126	4	6
Iowa	127	5	3
Washington	129	6	7
Colorado	131	7	10
Kansas	134	8	5
Nevada	141	9	8
California	146	10	9
Idaho	157	11	11
Minnesota	159	12	12

It is to be noted that this table refers to students registered for degrees and excludes special students, correspondence students, extension students, and those who take short courses. The omission of these exceedingly important elements makes the table an inadequate comparison of the extent to which the residents of the several States take college work, but it nevertheless serves to indicate the relative emphasis placed by the people of the States upon higher education.



The importance ascribed by the citizens of Utah to college and university education is further indicated by the high rank which Utah takes in comparison with other States in the percentage of its college students who attend college in the home State. Table 2 shows the States with the highest and lowest percentages of home-trained college students in 1922-23.

TABLE 2.—Percentage of students attending colleges in their home States

Rank	State	Per cent	Rank	State	Per cent
1	California.....	90.4	44	New Mexico.....	53.9
2	Texas.....	89.4	45	New Hampshire.....	49.1
3	Oregon.....	87.2	46	Delaware.....	48.3
4	Utah.....	86.7	47	Wyoming.....	45.8
5	Nevada.....	84.3	48	Connecticut.....	34.1
6	Minnesota.....	82.5	49	New Jersey.....	21.1

The complete tabulation from which Table 2 was extracted shows that on the average for all States, only 75.6 per cent of the students remain in their home States to take their college courses, while in Utah 86.7 per cent remain at home. This high percentage of home-trained college students in Utah can not, of course, be accounted for simply by ascribing it to the excellence of home institutions as compared with outside colleges and universities. Other social factors and characteristics of population, geographical situation, low general level of family cash income, and strong family ties, for instance, may unite to bring about this result quite as certainly as generous provision for the highest type of college education in the State.

Utah ranks very high, too, in the number of its women who attend college. Table 3 shows the number of males and females in the State for each man or woman student of the State. The progressive attitude of Utah with reference to the rights and privileges of women is clearly manifested in the fact that only one other State shows a larger number of women students as compared with the population. On every hand in Utah it is a matter of pride that the women of the State are so imbued with a desire for college education.

TABLE 3.—Number of males and of females for each man or woman college student

Rank	State	Women	Rank	State	Men
1	Nevada.....	103	1	District of Columbia.....	73
2	Utah.....	118	2	Utah.....	84
3	Nebraska.....	133	3	Oregon.....	104
4	Oregon.....	146	4	Colorado.....	105
5	Iowa.....	148	5	Iowa.....	110
6	Washington.....	168	6	Kansas.....	116
44	Connecticut.....	503	44	New Mexico.....	282
45	Rhode Island.....	521	45	Louisiana.....	288
46	Virginia.....	529	46	Tennessee.....	308
47	Arkansas.....	556	47	Kentucky.....	314
48	Tennessee.....	664	48	Oklahoma.....	325
49	Georgia.....	1,029	49	Arkansas.....	373

Ninety-three and three-tenths per cent of Utah's women students attend college in their home State, while the corresponding figure for male attendance shows that 82.2 per cent of its college men attend Utah institutions.

TABLE 4.—Per cent of men and of women attending college in their home States

Rank	State	Women	Rank	State	Men
1	Texas.....	94.4	1	California.....	88.0
2	California.....	94.0	2	Oregon.....	88.5
3	Utah.....	93.3	3	Texas.....	84.5
4	Oregon.....	89.6	4	Michigan.....	82.5
5	Nebraska.....	88.3	5	Utah.....	82.2
6	Minnesota.....	86.9	6	Georgia.....	82.1
44	New Mexico.....	56.7	44	New Mexico.....	52.3
45	Wyoming.....	52.3	45	Delaware.....	50.2
46	Delaware.....	43.8	46	Oklahoma.....	50.1
47	New Hampshire.....	32.7	47	Wyoming.....	41.3
48	Connecticut.....	20.4	48	Connecticut.....	38.2
49	New Jersey.....	18.4	49	New Jersey.....	22.2

Although the indications are thus clear that a large proportion of the men and women of the State utilize the educational facilities afforded at home, the figures may also be interpreted as meaning that the people of Utah hesitate for reasons of sentiment to send their children, especially their girls, far away from home during their youthful years. It is interesting to note in this connection that Table 4 shows a difference of 11.1 per cent between Utah's attendance of women and of men, while the other States which appear among the highest for both men and women show differences as follows: Texas, 9.9 per cent; California, 6 per cent; Oregon, 1.3 per cent. Utah's women, as compared with the men, show a more pronounced tendency to stay at home than women in these other States. The question may be asked whether the facilities offered by Utah for the education of women at home are better or whether the people are more conservative about sending their daughters so far away.

The distribution of Utah students may be examined profitably with reference to the statement heard frequently in Utah that the State is supporting a large number of college students from outside its borders. The following table indicates the facts:

TABLE 5.—Number of students Utah sends to and receives from other States

Total number of students Utah receives from other States—			Total number of students Utah sends to other States—		
Men	Women	Total	Men	Women	Total
311	125	436	509	127	636



TABLE 5.—*Number of students Utah sends to and receives from other States—*  
Continued

Utah receives students from—					Utah sends students to—				
Rank	Location	Men	Women	Total	Rank	Location	Men	Women	Total
1	Idaho.....	131	70	201	1	California.....	147	59	206
2	Colorado.....	33	4	37	2	Illinois.....	76	13	89
3	Wyoming.....	31	22	53	3	District of Colum- bia.....	40	3	42
4	California.....	18	3	21	4	Pennsylvania.....	42	5	47
5	Arizona.....	12	4	16	5	New York.....	33	20	53
6	Pennsylvania.....	10	.....	10	6	Colorado.....	23	3	26
7	Montana.....	8	5	13	7	Maryland.....	23	2	25
8	Nevada.....	7	11	18	8	Massachusetts.....	18	.....	18
9	Minnesota.....	6	.....	6	9	Missouri.....	13	4	17
10	Illinois.....	5	.....	5	10	Michigan.....	8	.....	8

Thus Utah is sending 200 more students to other States for their education than it is receiving from outside. Further, the foregoing figures show that the State from which Utah receives its greatest number of students sends a few less students to Utah than Utah sends to another of its neighboring States: Idaho may owe Utah, but Utah is indebted to California.

Parents and students are concerned from the standpoint of expense in the question of whether the home State provides adequate higher education. It costs the parent more on the average to send a son or daughter outside the State for education than to educate his child within the State. The difference is due in large part, of course, to greater travel expense, but also in part arises from the fact that publicly supported institutions usually charge higher tuition rates to out-of-State students. Even though this charge never equals the actual cost of educating a student, the home State bears a larger proportion of the expense for its own residents than for nonresidents. Taxpayers who do not themselves attend or send children to the State-supported institutions help to pay this cost in the home State, and parents with children attending institutions outside the State continue to pay their proportion of home-State taxes devoted to higher education. Every taxpayer, therefore, who for himself or family may desire higher education not available in the home State, or not there available of satisfactory standard, is financially affected to a greater or less degree.

When students are educated in the private institutions of the home State rather than in the publicly supported ones, the parent or the private organization with which the parent is affiliated must bear, directly or indirectly, the entire cost of the higher education provided. Support of private institutions is in effect, therefore, a second and additional tax assumed by a portion of the population. This burden is assumed voluntarily. If the number of students

educated in such institutions is a very large proportion of the college and university student population of the State, it is probably fair to assume that the burden of public tax for higher institutions borne by those who do not contribute to the support of the private institutions is considerably reduced.

It is interesting to note the proportion of the student burden borne by the private institutions of Utah. The following table (Table 6) indicates this for a period of years:

TABLE 6.— *Division of students between private and public institutions*

Institution	1922	1923	1924	1925
Brigham Young College <sup>1</sup> <sup>2</sup>	64	114	152	224
Weber College <sup>2</sup>	64	161	257	291
Brigham Young University	989	801	888	1,146
Snow Junior College	45	91	146	132
Dixie Normal College	46	46	63	61
Westminster College <sup>2</sup>	31	41	43	49
Total private	939	1,254	1,549	1,903
Agricultural College of Utah	716	769	841	881
University of Utah	2,437	2,411	2,446	2,663
Total State	3,153	3,180	3,287	3,574

<sup>1</sup> This institution will be closed in June, 1926, but the total enrollment in the State will not be much affected. The agricultural college will get a large number of the students probably, since they come largely from its immediate locality.

<sup>2</sup> Junior college.

It will be noted that the enrollment in private institutions has increased steadily from year to year and that more than one-third of the total student enrollment as reported by this table is found in the private institutions of the State. This does not, however, mean that one-third of the cost is borne by private institutions. Only one of these institutions, Brigham Young University, carries on graduate work. All of the others are of junior college rank. They give instruction during the years when instruction is cheapest to conduct. Nevertheless, the burden of tax-support for higher education is considerably lessened by the work of these institutions. No doubt the closing in 1926 of Brigham Young College at Logan, with 249 students of college grade, will throw an additional burden upon the State college at Logan, and perhaps to a lesser degree upon the State University. If other private institutions are closed the State may well look for an increased demand for accommodations at the two State institutions. It may be found sometime in the future, if the private junior colleges are closed, that it will be necessary for the State to take over certain junior college work in the same way that it has already established the Branch Agricultural College at Cedar City.

The financial interest of the people of Utah in finding at home all the educational opportunities which they seek has already been



mentioned. Naturally this interest is more than financial. State pride, desire for a large degree of State independence and self-determinism, belief in the positive financial returns afforded by higher education, and a number of other considerations of sentiment and profit make the leaders in Utah, as in other States, wish to provide as varied and extensive a program of higher education as the needs and resources of the State permit. Knowledge of what the people of a State demand, however, and of how fully the higher institutions of the State satisfy this demand is usually exceedingly vague and based upon general impressions and observations. No entirely accurate objective measure of these matters has been devised, but Table 7, which follows, contains information of considerable value in arriving at a well-founded judgment.

TABLE 7.—Residents of Utah pursuing various courses of study in colleges and universities located respectively within their State and all other States<sup>1</sup>

Study	Within the State		Without the State	
	Number	Per cent	Number	Per cent
Graduate work.....	50	30.6	113	69.4
Liberal arts.....	2,605	72.4	991	27.6
Agriculture.....	89	76.7	27	23.3
Commerce and business.....	138	63.3	80	36.7
Dentistry.....	174	86.5	27	13.5
Engineering.....	411	90.5	42	9.5
Law.....	102	88.0	14	12.0
Medicine.....	27	22.1	95	77.9
Pharmacy.....			3	100.0
Theology.....			8	100.0

<sup>1</sup> For year 1920-21. No later figures are available.

The figures in the foregoing table, with reference to two matters, are especially deserving of consideration. First, when the percentage of residents of Utah studying outside the State for a specific profession or employment is large, the presumption is justified that the State does not provide satisfactory opportunities to the extent demanded. Second, when the number studying outside the State for one of these professions or employments is large enough to constitute an efficient and economical instruction unit, it would seem that further study should be made to determine whether the State's educational program should not be expanded to provide for the apparent deficiency. Graduate work, commerce and business, medicine, pharmacy, and theology show in each case over one-third of the State's total attendance outside the State. In each of these cases also, except theology and pharmacy, which have an insignificant total attendance, the number of students attending higher institutions outside the State is sufficiently large to justify consideration of the advisability of expanding the State's facilities. Each

of these fields of education will, therefore, be considered in detail later in this report.

The remainder of this chapter will deal with the attendance statistics for the university and for the agricultural college considered separately and in certain respects comparatively.

The following tables show the enrollments of the university and of the agricultural college by major divisions for the years 1923 and 1926.

TABLE 8.—Attendance at the University of Utah.

Graduates and undergraduates	1922-23, resident		1923-24, resident		1924-25, resident		1925-26, resident	
	Classified	Unclassified	Classified	Unclassified	Classified	Unclassified	Classified	Unclassified
Graduate division	173		176		192		105	
Undergraduates:								
Arts and science	419	80	433	76	458	92	551	87
School of education	696	64	701	69	734	106	848	97
Schools of mining and engineering	276	82	311	76	364	47	381	27
School of medicine <sup>1</sup>	122	52	128	28	153	5	165	21
School of law	95	19	109	17	135	15	122	25
Commerce and finance	343	102	355	67	392	79	421	51
Total	1,951		2,037		2,236		2,488	
Vocational rehabilitation trainees <sup>2</sup>		125		39		20		9
Total		524		372		364		317

<sup>1</sup>Includes premedical. In 1922-23 there were 50 medical and approximately 70 premedical students enrolled, and in 1923-24, 49 medical and 88 premedical.

<sup>2</sup>Includes special students.

TABLE 9.—Attendance at the Utah Agricultural College

Graduates and undergraduates	1922-23, resident		1923-24, resident		1924-25, resident		1925-26, resident	
Graduate division	39		42		41		38	
	Classified	Unclassified	Classified	Unclassified	Classified	Unclassified	Classified	Unclassified
Undergraduates:								
Agriculture	153	3	129	3	132	1	119	1
Agricultural engineering and mechanic arts	85	5	56	2	79	1	90	0
Basic arts and science	219	15	243	4	349	8	306	0
Commerce	146	10	143	4	162	1	198	2
Home economics	91	3	78	0	91	0	97	0
Total	694	36	649	13	813	11	899	3
Vocational rehabilitation trainees <sup>1</sup>				55		21		9
Total	694	36	649	68	813	32	899	12

<sup>1</sup> This work has ceased since the period covered by the tables.

Comparison of the attendance of the two institutions in those divisions which are similar in scope and character may be of value; at any rate such comparison serves to emphasize several questions



raised in the minds of the surveyors by observation of the higher State institutions.

Of the 133 graduate students in residence in 1925 in the two institutions, 30.8 per cent were at the agricultural college, although the total enrollment of the agricultural college was only 26.6 per cent of the enrollment of the two institutions. When the less favorable location of the agricultural college, with respect to extra-collegiate local facilities for graduate work is considered and when it is remembered that the major lines of graduate work offered by the agricultural college are usually more restricted and frequently less popular than those suitable to the State university, it would seem that the efforts of the agricultural college to develop graduate work have brought creditable results. It also raises again the question of whether there may not be a demand for certain additional phases of graduate study which the university should attempt to satisfy.

Of the total classified undergraduate enrollment in the university, 20.4 per cent was, in 1924-25, enrolled in the school of arts and sciences, while the corresponding percentage in the agricultural college enrolled in basic arts and science was 42.9. In other words, the agricultural college enrolled in basic arts and science over three-fourths as many as the university enrolled in arts and sciences, although its total classified undergraduate student body was only a little more than one-third as great. This indicates probably that the students of the agricultural college are seeking and receiving a somewhat broader and cultural rather than a strictly vocational training in even greater numbers proportionately than is the case in the university.

In commerce and finance in the university the school claimed in 1924-25, 17.5 per cent of the classified enrollment; in the agricultural college 19.9 per cent of its enrollment was in the school of commerce and business administration. The agricultural college enrolled in this school almost one-half as many students as the university, in spite of the fact that it is not located in a large city and has no such close physical contact with commercial and industrial activities as the university. Examination of the enrollment in connection with the courses taken does not show that this large enrollment in commerce and business in the agricultural college is due to the fact that the institution is strong in those aspects of the subject which have immediate application to the business problems of agricultural life.

Both institutions draw their enrollment from all portions of the State. Naturally their own counties provide the largest number, but it is interesting to see that only one county, Daggett, with a

population of only 400, failed to furnish a student for either institution in 1926. The following table may be studied with some profit:

TABLE 10.—*Comparative enrollment by counties, 1925-26*

Counties	Population	Total enrollment	
		University	Agricultural college
Beaver.....	5,139	11	12
Boxelder.....	18,788	59	78
Cache.....	26,992	26	583
Carbon.....	15,489	25	4
Daggett.....	400	0	0
Davis.....	11,450	99	32
Duchesne.....	9,093	12	0
Emery.....	7,411	7	4
Garfield.....	4,768	6	5
Grand.....	1,808	9	3
Iron.....	5,587	17	5
Juab.....	9,871	28	34
Kane.....	2,054	3	4
Millard.....	9,659	19	8
Morgan.....	2,542	5	4
Piute.....	2,770	5	1
Rich.....	1,890	9	4
Salt Lake.....	159,282	1,831	72
San Juan.....	3,379	4	0
San Pete.....	17,505	45	17
Sevier.....	11,281	66	12
Summit.....	7,862	35	16
Tooele.....	7,965	52	7
Uintah.....	8,470	21	8
Utah.....	40,792	75	16
Wasatch.....	4,625	15	6
Washington.....	6,764	11	3
Wayne.....	2,097	3	0
Weber.....	43,463	131	39
Total for Utah.....		2,639	977

<sup>1</sup> It is estimated that about 200 of these would be more appropriately classed as residents of other counties, their parents having moved to Salt Lake only for the period during which they attend the university.

The following tables show the registration by classes in both institutions during the years 1922-1926:

TABLE 11.—*Enrollment in the university*

Registration	1922-23, residence	1923-24, residence	1924-25, residence	1925-26, residence
By classes:				
Graduate.....	73	76	92	105
Seniors.....	251	279	328	354
Juniors.....	308	303	356	392
Sophomores.....	474	584	619	685
Freshmen.....	918	871	924	1,057
Total.....	2,024	2,113	2,319	2,693
Unmatriculated.....	399	333	353	308
Vocational rehabilitation trainees.....	125	39	20	9
Total.....	2,548	2,485	2,692	2,910



TABLE 12.—*Enrollment in the agricultural college*

Registration	1922-23, residence	1923-24, residence	1924-25, residence	1925-26, residence
By classes:				
Graduate.....	39	41	41	38
Seniors.....	115	105	125	113
Juniors.....	110	133	142	153
Sophomores.....	179	151	213	283
Freshmen.....	290	261	333	350
Total.....	733	691	854	937
Unclassified.....	36	13	11	3
Vocational rehabilitation trainees.....		55	21	9
Total resident enrollment.....	769	759	886	949

The rate of the student mortality in the two institutions shown by these tables is of interest. Figures collected for the United States by the United States Bureau of Education some years ago (Bulletin, 1920, No. 34, Statistics of Universities, Colleges, and Professional Schools, 1917-18) indicate that approximately 73.6 per cent of the entering freshman class will become sophomores; 75 per cent of the sophomores will become juniors; 77 per cent of the juniors will become seniors; and 76.6 per cent of the seniors will graduate. Or, from another standpoint, 41.6 per cent of the students entering college will become seniors and 32.2 per cent will graduate.

Although the foregoing tables for the two higher State institutions of Utah include accessions after the freshman year and do not show accurately, therefore, the actual mortality, such accessions are relatively small and do not materially affect the results. Such effect as they have is to make the error introduced contribute to reduction of the mortality rate and is therefore favorable to the institution.

It will be noted that in the university, of the 871 freshmen in the class entering in 1923-24, 619 remain as sophomores in 1924-25. If the percentage for the United States held, 641 students would have remained as sophomores. For the agricultural college the freshman class of 261 in 1923-24 becomes a sophomore class of 213 in 1924-25. If the mortality had been as great as that for the United States the number of sophomores would have been 192. In other words, the university failed to maintain a record equal to that of the United States as a whole, while the agricultural college had an average somewhat better than the general one. Whether this is due to the excellence of the latter institution or to lower standards is, of course, a subject not shown by these statistics.

During recent years State-supported higher institutions, especially the State universities, have frequently admitted students in excess of their ability to handle them efficiently. As a result a severe weeding-out process during and at the end of the freshman year became necessary in order to reduce the sophomore class to manage-



able proportions. This method of meeting the situation may result in waste of the time, energy, and money of the students eliminated and in reduction of the educational usefulness of the freshman year to the entire class. But the public character of the State universities has prevented them, in many instances, from exercising a careful selective process prior to admission. The facts that large numbers demand higher education and that sufficient funds and equipment are lacking have, in many cases, perhaps left no alternative.

It seems, however, that the public higher institutions of Utah are sufficiently free in determining qualifications for admission to avoid the necessity for any such wasteful process. Admission to neither institution has been upon a highly selective basis and the mortality during the freshman period has in the case of the university been excessive. No attempt is made here to account in detail for this fact, but the survey commission believes that a very careful selective process of admission would greatly reduce the mortality rate during the beginning period of university life and would also have considerable effect upon mortality subsequent to the sophomore year. Discussion and recommendations with reference to such selective process will be found at another point in this report.

Examination of the mortality figures, based on the table shown above, for the sophomore-junior period and over the entire four years of the ordinary college course will also reveal facts of significance and interest.

With regard to the mortality between the sophomore and junior years, in the State university for the year 1923-24, the 584 sophomores were reduced to 356 in the junior class, a loss of 39 per cent; for the year 1924-25, the 619 sophomores were reduced to 392 juniors, a loss of 36.6 per cent.

In the agricultural college for the year 1923-24 the 151 sophomores were reduced to 142 in the junior class, a loss of 5.9 per cent; for the year 1924-25, 213 sophomores were reduced to 153 in the junior class, a loss of 28.1 per cent.

Inasmuch as the mortality of students between the sophomore and junior years for the whole United States is 25 per cent, it is evident that the mortality of this group for the State university is greatly in excess of the average of the country, while in the agricultural college it appears to be considerably less in one year and slightly in excess for the second year under consideration.

#### COSTS OF HIGHER EDUCATION

The commission discovered in Utah a rather unusual number of people whose thinking had led them to believe that expenditures for private institutions in the State as well as expenditures for public



institutions are a charge against the resources of the State. This is true in Utah to a larger extent, of course, than in States whose private institutions are supported by nation-wide or regional contributions or by churches drawing their funds from national church constituencies. It was assumed very frequently in Utah that the fact that the people of the State do support the private institutions results inevitably in an undue burden upon the State in support of higher education when this expense is added to that devoted to higher education through taxation. In view of this current belief, it is interesting to compare the per capita income for higher education of Utah with that of other States. The following table shows that for each member of the population in Utah 76 cents income is provided for the support of private institutions, whereas \$1.44 is provided for public institutions, making a total of \$2.20 income for higher education for each member of the population. Utah thus ranks ninth among the States in income for private institutions, twenty-first in its income for public institutions, and nineteenth for public and private institutions combined. Its position, therefore, as compared with other States is creditable upon all three of these counts. However, the method of comparison upon the basis of population is frequently attacked upon the grounds that the State's ability to pay is not measured by the number of its people but by the amount of its available wealth. The table, therefore, has included a column showing the amount of income for higher education for each \$100 of wealth. Upon this score Utah ranks seventeenth among the States listed.

TABLE 13.—Income per capita of State population for both private and State higher institutions in 1923-24

State	Rank	Private institutions	Rank	Public institutions	Rank	Total	Rank	Income per \$100 of wealth
Connecticut.....	1	\$3.04	38	\$0.52	1	\$3.56	7	\$0.060
North Dakota.....	37	.12	1	3.37	2	3.49	3	.094
Oregon.....	16	.54	3	2.93	3	3.47	8	.083
Iowa.....	20	.44	5	2.73	4	3.17	15	.074
Minnesota.....	18	.50	6	2.64	5	3.14	5	.091
South Dakota.....	27	.29	4	2.78	6	3.07	18	.085
Nevada.....			2	2.98	7	2.98	37	.043
California.....	7	1.05	19	1.59	8	2.64	19	.086
Massachusetts.....	2	2.02	37	.56	9	2.58	10	.079
Colorado.....	31	.20	7	2.30	10	2.50	14	.078
New Hampshire.....	3	1.32	28	1.05	11	2.37	12	.077
Wisconsin.....	28	.28	12	2.08	12	2.36	9	.082
Montana.....	39	.11	9	2.24	13	2.35	20	.064
Michigan.....	36	.12	11	2.16	14	2.28	11	.079
Wyoming.....			8	2.26	15	2.26	36	.048
Kansas.....	24	.35	14	1.89	16	2.24	21	.064
North Carolina.....	15	.54	16	1.60	17	2.23	1	.131
Arizona.....			10	2.21	18	2.21	22	.063
Utah.....	9	.76	21	1.44	19	2.20	17	.068
Idaho.....	42	.08	13	1.97	20	2.05	23	.062
Nebraska.....	22	.42	17	1.62	21	2.04	34	.051
Illinois.....	4	1.17	82	.85	22	2.02	26	.061
Washington.....	34	.13	15	1.73	23	1.86	33	.052
Louisiana.....	13	.57	23	1.25	24	1.82	2	.096

TABLE 13.—Income per capita of State population for both private and State higher institutions in 1923-24—Continued

State	Rank	Private institutions	Rank	Public institutions	Rank	Total	Rank	Income per \$100 of wealth
Maryland	6	\$1.08	34	\$0.74	25	\$1.82	16	\$0.069
Oklahoma	41	1.10	18	1.60	26	1.70	6	.091
Ohio	11	.72	29	.97	27	1.69	29	.056
West Virginia	33	.15	28	1.52	28	1.68	31	.055
Missouri	17	.54	26	1.10	29	1.64	30	.056
Maine	25	.33	22	1.28	30	1.61	24	.062
Rhode Island	5	1.17	47	.37	31	1.54	35	.049
Texas	23	.36	24	1.18	32	1.54	13	.077
Vermont	8	.77	35	.72	33	1.49	25	.062
South Carolina	30	.24	27	1.06	34	1.30	4	.094
Indiana	32	.17	25	1.10	35	1.27	38	.043
New York	10	.73	44	.38	36	1.11	46	.032
Virginia	26	.31	33	.78	37	1.09	32	.053
Pennsylvania	12	.60	40	.46	38	1.06	44	.033
Florida	38	.11	31	.90	39	1.01	39	.043
Tennessee	14	.55	41	.46	40	1.01	28	.057
New Mexico			30	.97	41	.97	10	.042
New Jersey	19	.46	42	.45	42	.91	47	.020
Kentucky	22	.42	39	.47	43	.89	27	.061
Delaware			36	.70	44	.70	48	.025
Georgia	29	.26	48	.8	45	.54	11	.041
Alabama	35	.12	46	.37	46	.49	42	.039
Arkansas	40	.10	45	.38	47	.48	45	.033
Mississippi	43	.04	43	.43	48	.47	43	.039

Includes normal schools.

Neither the money spent nor the wealth of the State indicates money actually available for expenditure, since it is the money collected in taxes that pays for the State-supported institutions and voluntary contributions which pay for the private ones. The following table indicates the percentage of the tax dollar spent for higher education by Utah and its neighboring States:

TABLE 14.—Rank of States in per cent of tax dollar spent for higher education

States	Per cent	Rank
Arizona	5.24	1
Montana	4.80	2
Colorado	4.76	3
Oregon	4.72	4
Wyoming	4.66	5
Idaho	4.21	6
Nevada	4.10	7
New Mexico	3.67	8
Washington	3.53	9
Utah	2.87	10
California	2.33	11

Only one of these 11 States, according to this table, spends a smaller proportion of the tax dollar than does Utah for higher education, while 7 States show expenditures very greatly in excess of Utah.

The idea that the State higher institutions are responsible for a large proportion of the tax burden is a mistaken one. This is evident from the fact that only 2.87 per cent of the tax dollar goes



to higher education. Absolutely, of course, 2.87 per cent of the taxes constitutes a large sum, but this is not great when considered from the standpoint of how much the individual would save on his taxes if the State higher institutions were entirely abolished.

The question, after all, is not simply one of ability to pay or of per capita costs. The fact that so much concern is felt in Utah in regard to higher education, from the standpoint of desiring the youth of the State to participate in the benefits of such education and in the feeling that perhaps the system is too expensive, indicates that the matter about which concern is vital is whether the money spent is being spent in the most effective manner possible and is adequate to meet the State's needs. Because other States spend more or less really has very little bearing upon the question. While it is desirable to point out that the amount spent as compared with other States, does not appear extortionate nor oppressive, these facts should not blind to the possibility of securing a more economical as well as a more effective system of higher education. It is from this standpoint that the people of the State have felt concern in regard to duplications and conflicts of interest between the two State institutions.

The following table indicates the tuition and the fees charged by the State institutions of Utah and its neighboring commonwealths. It will be noted that in the six States listed by the table, in which the university and the agricultural college are separate institutions the combined tuition for arts and sciences and the library, gymnasium, athletic, student, incidental, and registration fees are higher in every instance but one in the State university than in the agricultural college. In Montana the fees for the two institutions are the same. It should be noted also that in Montana these fees are higher than in any other of the States compared. The difference between the fees of the two institutions is less, however, in Utah than in any of the other States, varying from \$6 in Utah to \$38.50 in Colorado. It would appear that perhaps a differential in favor of the agricultural college has been arrived at deliberately in order to encourage agriculture or in order to make more easily available to a specific class the advantages of higher education in a line which may well be presumed to increase directly the resources of the State. Utah's fees for the agricultural college, however, are higher than those for any of the other States except Montana, previously noted. Only Washington and Montana charge higher fees at the university than does Utah. It would seem from these figures that Utah's charges are certainly not extraordinarily low.

TABLE 15.—Fees

Institutions	Tuition										Gymnasium	Athletic and student	Incidental and registration	Matriculation	Graduation	Medicine and infirmary
	Medicine		Law		Arts and sciences		Agriculture									
	Resident	Nonresident	Resident	Nonresident	Resident	Nonresident	Resident	Nonresident								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
University of Arizona				\$100		\$100		\$100			\$10	\$10		\$5	\$10	
University of California	\$200	\$500		150		150		150	(1)			50				
University of Colorado	165	270	\$75	105	\$45	90						10	50	\$5	5	
Colorado Agricultural College						25		25	\$3		13	9		5		
University of Idaho			25	25		60		60			18			5	5	
Montana State College						75		75			15	45		5	6	
State University of Montana				75		75					15	45		5	7.50	
University of Nevada						150		150			17	20		5	6	
New Mexico College of Agriculture and Mechanic Arts						38	68	\$38	68	2.50				5	5	
University of New Mexico					30	105					10	10		5	5	
Oregon State Agricultural College								150	150	\$5	25	50	10		5	
University of Oregon	180	240	30	180		150				8	(1)	39.75	(1)	10		
Agricultural College of Utah					27	27	27	27		3	12	(1)		5		
University of Utah	120	120	105	105	39	39				.50	8.50	(1)		10		
State College of Washington					20	150	20	150	2	2	15			5		
University of Washington			45	150	45	150			3	1.50	10			5		
University of Wyoming										4.50	15	22.50	2	5		

<sup>1</sup> Law, \$25.<sup>2</sup> Medicine, \$6.<sup>3</sup> Included in the \$39.75.<sup>4</sup> Medicine, \$5.<sup>5</sup> Resident, \$10; nonresident, \$35.<sup>6</sup> Law, \$10.

No one knows exactly where the line is in payment of fees which discourages any large proportion of prospective students from attending a college. Although it is stated very frequently that large fees do serve to deter poorer boys and girls from attending higher institutions, there may be some question in regard to this matter as long as fees do not become so large that they are out of proportion to the services received.

It has become somewhat popular to talk about students paying the cost of their own education. Of course no private nor public higher institution at the present time has undertaken to require this, although the tendency is toward higher fees both in public and private institutions. This plan leaves out of consideration also the actual money value to a State of the men and women trained in its higher institutions. It may well be maintained upon this basis that the State can afford to pay for the higher education of its people as well as for their elementary and secondary education. It is very probable that the cost to the State of instruction in a university or college is small in proportion to the return given by the individual so trained.



In this connection it has been proposed quite frequently that the charges to students from outside the State be raised materially. Reference to preceding tables will show that Utah sends more students outside the State than it receives from outside. The amount received from such students would not be large, and excessive imposts laid upon students from other States may well lead to retaliation which will in the end prove costly.

The law of March, 1921, provides that the "entrance fee" shall be the same for the university and for the agricultural college. Not less than \$25 for residents nor less than \$50 for nonresidents is required annually. The presidents of the two institutions are permitted, however, to remit this fee to a number of students up to 10 per cent of the actual enrollment. They have apparently taken full advantage of this privilege. The two boards meet conjointly under the chairmanship of the secretary of state, to determine the entrance fee annually. The boards of the institutions acting separately are authorized to fix reasonable charges for special courses not embraced in the regular courses, while the board of regents is required to fix tuition for each of the courses, such as medicine and law, at an amount not exceeding \$75 for residents and \$150 for nonresidents. Examination of the catalogues of the two institutions shows that uniformity of entrance fees has not been interpreted to mean uniformity of fees for comparable courses. Thus in the liberal arts course, the basic arts course, the department of commerce and business administration, and so on, the two institutions might well require the same fees. In fact, it might be well to fix the fee upon the basis of credit hours and require that upon the basis of credits the fees in the two institutions be the same.

#### DUPLICATION

It is the fashion in Utah, as in other States, to designate as duplications the evidences of lack of coordination between the work of the university and the agricultural college and between these institutions and other elements in the educational system. In every State where the difficulty exists conflict of interest expresses itself most frequently in contests for appropriations before the legislature. Even though the theory of common educational service to the State may be embodied in the fundamental law, as it is in Utah, and even though the legislature may from time to time take a hand in straightening out tangles or in disciplining one faction or the other, fundamentally the difficulty will never be corrected until there is in operation some method of continuous coordinated planning for the higher institutions *as elements* in one educational service. This is largely true because so frequently the difficulties are not difficulties



of actual duplication but of competitive exploitation. Thus it is often the case that the work of a State institution, wholly legitimate and proper and within the scope intended for its activity, is distorted by competitive presentation until it appears to be an encroachment upon the field of a sister institution. In other cases duplication that actually exists is in only a small degree harmful or wasteful duplication, but is magnified by unfriendly representations until it appears to be deliberate violation of the letter and the spirit of economical administration.

It is always interesting to find those who are especially violent in denunciation of duplication somewhat at a loss to define the specific functions of one of the institutions so as to exclude from its teaching any large number of subjects already handled. Utah is no exception. As long as two institutions exist in the State geographically separated by a considerable distance it will be necessary for each to teach English and botany and history and economics and sociology and chemistry and the whole range of subjects that are basic, culturally and scientifically, rather than peculiar to the educational mission of any one type of institution. As long as human activities seemingly as far apart as agriculture and literature express themselves in a common language and are developed together in a common social and economic environment, both will require preparatory forms of instruction which in many of their aspects are identical.

In view of the conditions described above it is unfortunate that duplication is the term applied most frequently to the evils of such situations. This terminology distorts understanding of the facts and is therefore likely to lead to the application of remedies unsuitable for the ill intended to be cured. The legislature in Utah has frequently attempted to deal with this lack of harmonious and coordinated educational development by passing laws against duplication and by specifying the classes of subjects to be taught by the two State-supported institutions. The law making body has felt that the duplication must be serious and extensive, since the legislature itself has been so often a battle ground between the friends of the agricultural college and of the State university.

The nature of the printed advertising of the two schools has helped to create throughout the State an impression of duplication more serious than actually exists and of competition more far-reaching than is actually the case. The following are samples of the type of publicity which does injustice to both institutions and to the actual educational situation: "The university is the *only institution* in the State of Utah to receive such recognition" (from the Association of American Universities). "If students desire to do work of the highest standing they should do it at the institution that has received the



highest educational rating." (From the announcement of the University of Utah, summer quarter 1926.) The college bulletin of the agricultural college, volume 25, No. 2, September, 1925, states that—

the school of commerce and business administration offers *complete* training for bankers, expert accountants, . . . advertising experts, salesmen, experts in political science, . . . business administrators, private secretaries, business managers.

This emphasis by the university upon competition with its sister institution and these large claims made by the agricultural college for a department whose work the university is especially qualified and happily located to carry on, give an impression that a contest rather than a State program of education is the concern of the institutions. Since the people are fundamentally sound in their thinking, they do not approve rivalry of this kind, but with insufficient information available to them it is to be feared that they also takes sides and fan the flames of controversy.

It was in this situation that the law known as bill 100 was passed. This law is merely the last of several attempts to meet by legislation the need for greater unity in the State higher-educational program. The law provides that—

The general control and supervision of the public-school system is vested in the State board of education, which board shall adopt rules and regulations to eliminate and prevent all unnecessary duplication of work or instruction in any branch or division of the public-school system, and it shall require the governing boards of such branches and divisions of the public-school system to put the same into operation.

Further provision is made that—

Failure on the part of the State board of education to carry out the provisions of this section (4505) shall be deemed gross neglect of duty. Failure on the part of any governing board of the public-school system to comply with the decisions, rules, and regulations of the board of education adopted in accordance with the provisions of section 4505 shall likewise be deemed gross neglect of duty. No claim or claims for salary or expenses of such board or boards or any employee of such board or boards shall be allowed which are incurred for any work or instruction in any branch or division of the public school system which is in violation of the decisions, rules, and regulations adopted by the State board of education as provided in section 4505.

Under such compulsion as this law exercised, the fundamental requirement preliminary to solution of the problems involved was immediately recognized by the State board of education. The essential and inevitable preliminary was an impartial and unprejudiced marshaling of facts. The United States Bureau of Education was invited, therefore, to make a survey of the educational system of the State.

The inquiries of the survey commission at the higher institutions and among leading citizens of the State in the educational world, in business, and in the legislature led it to consider conflicts of interests between the two institutions with reference to arts and sciences, engineering, commerce and business, home economics, teacher training, summer school, and extension. Each of these aspects of the State educational program will be discussed in turn, and the recommendations of the commission with reference to each of them will be presented in connection with the discussion. This treatment of specific matter will serve as an introduction and background to the general recommendations of the commission with reference to administrative and other means for preventing similar conflicts in the future and for developing a coordinated higher-educational program in the State. Phases of the administrative and educational programs of the two institutions not directly related to the subjects around which interinstitutional controversies center will then be discussed, and finally matters peculiar to the university and to the agricultural college will in turn be presented in some detail.

#### ARTS AND SCIENCES

The liberal arts and sciences by their very name imply that they are the common intellectual heritage of all professions and of all educated men. It is not necessary to discuss the propriety of teaching the liberal arts and sciences as such at the university. They form the very backbone of its work. Nor is it necessary to discuss in detail the propriety of teaching the liberal arts and sciences at the agricultural college. The commission found no one in Utah, however insistent upon the agricultural college "sticking to its last" of teaching agriculture, who would deny to the student of agriculture the right of contact with the thought and learning which commonly pass under the name of liberal arts and sciences. In addition to their function as an element of any liberal education the sciences in an agricultural institution may also be regarded as basic to the study of agriculture, home economics, and mechanic arts, just as in the university certain of the sciences are basic to the study of medicine. The question, therefore, is not one of retaining in both institutions instruction in the basic sciences and arts, but in regard to more advanced work in these fields. To quote from the report of the survey of State institutions of higher learning in Kansas:

A State is wise, therefore, if it encourages research and graduate work at a separate land-grant college not only in the applications of the three major lines of work but in the basic sciences on which they depend. For purposes of economy in State expenditures for higher education and in order to be of



the greatest use to agriculture, home economics, and engineering, the State agricultural college should, however, be expected to devote its research and graduate work primarily to those fields of the basic sciences that are most closely related to the three original functions of the college. Any other policy would naturally lead to confusion with the advanced and graduate work in the same subjects which can be most advantageously conducted at the university. . . .

The obligation of the university, therefore, in the development of the sciences is inclusive, with certain exceptions, rather than specific as at the agricultural college. In the realm of the pure sciences there are innumerable fields of research and investigation, in many instances remotely connected with any known application, which the university and other institutions of similar character are under obligations to promote with vigor and proper encouragement. . . .

In the realm of the liberal arts, where advanced courses and research work are not necessary in the curricula for technical and scientific students at the agricultural college, the commission holds that it would be unwise to permit duplication in advanced courses and research work. (U. S. Bureau of Education Bulletin, 1923, No. 40, Report of a Survey of the State Institutions of Higher Learning in Kansas, pp. 57-58.)

Upon these grounds, therefore, the commission recommends that at the agricultural college the sciences, especially those basic to agriculture, agricultural engineering, and home economics be developed as major courses of study in undergraduate work, graduate work, and teacher training, but that the work in the liberal arts be confined to service courses. It recommends further that the degrees of B. A. and M. A. should not be given at the agricultural college but that the scientific tenor of the land-grant college curricula be recognized by use of the degrees bachelor of science and master of science. In this connection, economics and sociology should be developed at the agricultural college in connection with marketing problems and agricultural economics. The commission recommends that liberal arts and sciences be developed on a wide scale at the university. It is to the university that the State should look for scholarly leadership, without reference to practical application; to the agricultural college that it should look for research with practical reference to the fields of agriculture and home economics.

#### ENGINEERING

The law and the proximity of the university to mining, electrical, and business centers make the university the natural location for instruction in mining and engineering. Although the Agricultural College of Utah is the only American agricultural college except Massachusetts and the negro land-grant colleges of the Southern States where the three courses in civil, electrical, and mechanical engineering are not given, the advantages of the university's location and the development already made by the university in the field of



engineering would indicate, that the judgment of the legislators in continuing to confine these aspects of engineering education to the university is wise. The commission recommends, therefore, that courses of study in civil, chemical, electrical, mechanical, and mining engineering should be developed exclusively by the university. The great natural contribution which the university may make to the store of learning is in the field of mining and metallurgy.

The commission recommends also, in harmony with existing legal restrictions, that courses of study in agricultural engineering, including instruction in irrigation and farm machinery, should be developed exclusively by the agricultural college. However, since Utah is but beginning its industrial development and since equipment is available at both institutions, and the educational service to the State is real, the commission recommends that short courses in mechanic arts be developed both at the agricultural college and at the university.

At the present time the testing of highway material is carried on in the laboratories at the State capitol by the State Highway Commission. It is highly desirable that this phase of engineering be developed at the university and that laboratories and expenditures needed for testing work be a part of the service of the university to the State with proper compensation for the service. It is common practice in cities which have municipal universities for the university to render testing service and expert scientific and social service of many kinds to the municipality. Although in the past agricultural colleges have frequently been overburdened by having placed upon them extensive regulatory and testing functions, without commensurate increase in personnel and resources, the possibilities of similar service to the State by State universities, comparable to that of municipal universities to the city, has frequently been overlooked. Assistance to legislators and to State officials charged with governmental administration should always be available from the university.

The interest of the rural population in Utah in the matter of building and using roads is in many respects more personal and direct than that of any other element of the population. It would seem logical, therefore, that in connection with agricultural engineering at the agricultural college some of the simpler elements of road construction and repair be taught. In Kansas the agricultural college and the university divide the work up in accordance with an agreement which permits the university to develop fully highway engineering, in so far as it relates to cities and towns, while the agricultural college teaches highway engineering in so far as it relates to the open country and the rural districts. It would seem



that a division of this kind might well be made in Utah, although careful coordination between programs should be insured, and it is probably advisable that the greater part of the research work in highway engineering of all types be carried on by the university.

#### COMMERCE AND BUSINESS

Both the university and the agricultural college have developed schools of commerce and business. Neither, however, has as yet reached a point where its work is comparable to that of the great schools of business. The following table shows the distribution by counties of the students enrolled in commerce and business in the two institutions:

TABLE 16.—*Comparative enrollment in schools of business by counties, 1925-26*

Counties	Univer- sity	Agricul- tural col- lege	Counties	Univer- sity	Agricul- tural col- lege
Beaver.....	0	1	Rich.....	2	0
Box Elder.....	4	12	Salt Lake.....	328	7
Cache.....	1	129	San Juan.....	0	0
Carbon.....	1	2	Sanpete.....	3	* 2
Daggett.....	0	0	Sevier.....	20	1
Davis.....	24	10	Summit.....	3	0
Duchesne.....	3	0	Tooele.....	10	4
Emery.....	2	2	Uintah.....	3	0
Garfield.....	5	2	Utah.....	9	3
Grand.....	0	0	Wasatch.....	0	0
Iron.....	1	1	Washington.....	0	0
Juab.....	1	9	Wayne.....	2	0
Kane.....	1	0	Weber.....	12	15
Millard.....	3	0			
Morgan.....	0	0	Total.....	439	200
Piute.....	1	0			

This table shows that the agricultural college draws five-eighths of its enrollment in commerce from Cache County. The other enrollment is scattered and relatively insignificant, although Box Elder, Davis, and Weber Counties furnish 12, 10, and 15 students, respectively. The university draws almost three-fourths of its enrollment from Salt Lake. Davis is the only other county furnishing more than 20 students, and Sevier, Tooele, Utah, and Weber Counties furnish 10 or more. Naturally, commerce and business is more important in the university than in the agricultural college, since Salt Lake City is the business and industrial center of the State, while Logan is a small city.

The school of commerce and finance at the university is about 10 years old. It has developed very rapidly in the number of courses offered both in the department of business and in the department of economics. The growth in number of courses and in the size of the student body has been somewhat more rapid perhaps than the school has been able to organize and assimilate completely.

The classes in the departments of business and economics are very large. For the years 1922-1924 they averaged about 60. During the autumn quarter 1925-26 the average in size was even higher. In economics there were five classes with enrollments as follows: 58, 59, 62, 64, and 66. In business there were five classes enrolling, respectively, 54, 60, 67, 72, and 96.

The development by the university of extension courses in business and economics indicates considerable interest in this school among the business men of Salt Lake City and at other points in the State. However, in spite of this interest which may easily be made to provide support for various original investigations, the survey commission recommends against undertaking the development of research work on a graduate basis in this field until the present curriculum has been enriched and the work placed upon a more solidly organized plane than at present. No doubt with the development of business and industry in the State, considerable practical opportunity will be afforded for research and graduate work in commerce and finance. The immediate task, however, is consolidation of the development already made and it will probably be advisable for the university to delay extensive development of graduate work until industries or groups outside the university take the initiative in calling upon the university for specific service in research problems.

At the agricultural college contact with business and industry of the type which must provide the background and basis for development of work which should characterize a school of commerce of college or graduate grade is very slight, except, of course, in respect to the business of agriculture. Training in this aspect of business enterprise is obviously the peculiar function of the agricultural college. Financing, marketing, and business management of the types of agricultural industry peculiar to Utah present far-reaching and extremely technical problems upon which to base the development of both undergraduate and graduate work in agricultural economics. No doubt the development of research in the field of agricultural business is necessary to satisfactory and popular development of undergraduate work in this field. Enrollment in courses in these subjects now offered by the agricultural college indicates that the problem has not yet been solved.

In view of the considerations presented above the survey commission recommends that to the agricultural college be assigned the exclusive function of developing the field of agricultural economics, including marketing of agricultural products in both graduate and undergraduate aspects and that the work of developing other aspects of commerce and business as a major field be the exclusive function



of the university. The commission also recommends, in order that local demands may be met and in line with its major functions, that the agricultural college continue its present vocational courses for the preparation of stenographers and typists.

#### HOME ECONOMICS

Both the agricultural college and the university carry on work in home economics. Both conduct courses suitable for homemakers and for the purpose of preparing teachers. The university is restricted by existing law only by the provision that it can not grant a degree in home economics; home economics in the university is therefore a department closely allied to the schools of arts and sciences and of education. Students may choose home economics as a major leading to the degree of B. S. or B. A. in either of these schools. The four years vocational course is open to students in the school of education. In the agricultural college the work is conducted by the school of home economics and leads to the degree of B. S. The home economics work consists in large part of courses prescribed by the college. The prospective teacher must also meet the demands of the Federal Board for Vocational Education, and those of the State board of education.

It is clear that both institutions should continue to offer home economics work for homemakers. It is also the opinion of the survey commission that both should continue their work in teacher training.

At the university the course in child care and nutrition, now largely theoretical, should be extended by provision of proper laboratory facilities. The fact that the medical school is located at the university permits the close cooperation with the medical staff which is so essential to development of this phase of home economics work. Similar facilities do not exist at the agricultural college, and the college should limit its work in this respect to those aspects which are essential to the course for homemakers. Research and graduate work in child care and nutrition should be confined to the university.

Graduates of the university and agricultural college in home economics are employed for the most part in home-making and in teaching. Positions for students prepared to teach home economics have until recently been abundant, and the two institutions have been able to place in Utah or in neighboring States all those whom they prepared. However, the institutions furnished in 1925-26 twice as many home-economics teachers as in previous years, and there has been practically no increase in the number of teaching positions. In March, 1926, it was estimated that there would be in June more than 60 home-economics graduates looking for positions and not a single vacancy had as yet been reported to the State board of education.



These conditions lead naturally to the questions: Should the agricultural college and the university not develop instruction leading to other lines of home-economics employment and, if so, which of these new developments are especially suitable to the facilities of each of the two institutions?

Numerous fields of employment have been entered successfully by graduates especially trained by the home economics departments of other States. Thus we find home economics graduates employed as dietitians, directors of school nurseries, of dormitories, hospitals, cafeterias, hotels, and tea rooms; working as budget advisers, interior decorators, textile experts, milliners, and in various capacities in department stores. It is obvious that in Utah the opportunities in several of these activities are so limited that it would not be advisable for either institution to develop special courses preparatory therefor. However, it is fairly self-evident, even to the short-time visitor, that opportunities exist in the State that would provide profitable and useful employment to a sufficient number of graduates to justify the university and agricultural college in considering provision for them in their home economics courses.

The location of the university at the retail buying center of the State would indicate that business concerns there, as elsewhere, may well wish to utilize trained women to assist in merchandising their goods. Training in the field of retail buying and selling belongs, of course, to the school of commerce, but special home economics work as service courses to the school of commerce and in lines other than those of buying and selling may be discovered. In many instances probably short courses rather than long periods of special preparation would afford all the specific training that is required to prepare for many of these positions.

With the development of automobile tourist travel it would seem that courses in cafeteria and tea-room management might offer profitable occupation to women in the smaller as well as the larger towns and, as a part-time business, even in the open country. The campus dining rooms at both institutions might well be used as laboratories for development along these lines.

The agricultural college, because of its agricultural extension and home demonstration work, might well devote at some time in the future when positions for such teachers are considerably increased, effort to the development of home economics teachers in the field of adult education. This would mean that in preparation for such instruction research into the specific problems of adult teaching must be carried on since little is known about how methods applicable to adult instruction differ from those suitable for high-school pupils, although it is generally admitted that important differences



exist. This field is a growing one and coordinates well with agricultural extension service and with the expenditure of certain Federal funds peculiar to State agricultural colleges. Outside the fields which require close association with the staff of a medical school, as for example nutrition and child care, the agricultural college should lead the State in home economics research.

Finally the work of training county home demonstration agents in home economics is also an exclusive function of the State college which should be developed more intensively.

In connection with extension work in home economics it is apparent that the efforts of the three State factors now in the field, the agricultural college, the university, and the State department of education should be coordinated. As yet, owing to the breadth and variety of opportunities offered by the State which permit all these agencies almost unrestricted fields of educational service, there has been little active or wasteful competition. However, it is the opinion of the survey commission that the money expended might bring larger results if these services were coordinated and in some instances the respective fields of each agency defined by mutual agreement or by prescription of superior authority. In only one respect does the survey commission wish to make specific recommendation with respect to closer cooperation of these three agencies. It recommends that the State supervisor of home economics devote only approximately one-third of her time to supervision. The remainder of her time should be divided between the university and agricultural college as a member of their teaching staffs or upon a joint project agreed upon and under the direction of the two institutions. One such joint project which suggests itself is the development of the field of adult instruction and aid in home economics among the home makers of the State.

#### TEACHER TRAINING

In view of its thoroughgoing conviction that the service function of the higher institutions in preparing teachers for State service is so worthy and so obvious that it should command the united support and allegiance of the university and the agricultural college, the survey commission hesitates to discuss some of the irritations which have at best not contributed to the better performance of this duty. The really significant portion of the commission's discussion of teacher training in the higher institutions will, therefore, be found in the section where the common and noncontroversial interests and purposes of the two institutions are grouped, and in succeeding sections which treat of details with reference to the administrative and educational problems of each institution. It is the purpose to



take up at this point various detailed matters and to dismiss thereafter from further consideration those elements of disagreement which time has already solved or which action of secondary importance may eliminate.

The agricultural college has given credit for teaching experience, for summer work, and for extension courses, and has not required actual continuous residence in order to secure the bachelor's degree. The agricultural college upon this basis has granted degrees to students who were never actually students except in extension and summer school. The university requires for the degree 45 hours' credit, earned in three consecutive quarters, which may include one summer quarter. Since the agricultural college has no such rule it is contended that the university is placed under a disadvantage in its competition for students among the teaching class. In this connection also the agricultural college grants more liberal credits for extension courses than does the university. As a result, when agricultural credits earned by extension are transferred to the university, the university reduces the amount of the allowance from that given by the agricultural college. A number of these causes of dissension have already been removed, except that they survive as historical memories useful in controversial discussion.

The amount of credit toward degrees which may be earned in summer school is not determined by any standard practice in the United States. Some institutions permit all the work to be carried on in this way, although a greater number require a certain amount of residence during the fall, winter, and spring. If the work of the summer school is of high standard, there seems to be no reason why, for experienced adults especially, work during the summer may not have as much value as that carried on during the other three seasons.

Since teachers obtain a large proportion of their training while in-service through attendance upon summer schools, the matter of admission for summer work is also cause for complaint. Thus, while the agricultural college catalogue says that no admission requirements are prescribed for entrance to the summer school, the university catalogue states that if the applicant is not 21 years of age 15 units of acceptable high-school work will be required for admission. This is a subject for consideration and decision by the proposed board of higher education or by the coordinated research agency recommended at another point in this report.

Practically all institutions grant for extension a certain proportion of the credit required for the baccalaureate degree, and several permit some portion of the work for the master's degree to be earned in the same way. In no case, in Utah or elsewhere within



the United States, does the commission know of an institution classed by the recognized accrediting agencies as standard which permits all the work for any degree to be done by extension. It should be noted in this connection that the Utah requirements for certification of teachers provide that not more than nine quarter hours of correspondence or extension credit may be allowed toward certification of a teacher in full-time service while the school in which the applicant is teaching is in session. This provision insures, for teachers at least, certain limitations upon the rate at which degree credits may be earned through extension work. It does not, of course, insure that part of the work be in residence. It is the belief of the commission that control in this matter in Utah may safely be left to the action of accrediting agencies and of outside institutions in which Utah students may wish advanced standing. Complaints with reference to excessive credit for extension work may be considered and settled through the agency for coordination of such work recommended at another place in this report.

#### SUMMER SCHOOL

Competition and exaggerated advertising have been mentioned before as causes for the people of Utah looking with suspicion upon the natural diversity of interest between the university and the agricultural college. This has been the case especially with reference to the summer schools of the two institutions. The Utah Agricultural College has advertised a national summer school, the idea being that by means of faculties of national and international reputation, largely brought in from outside the State, the agricultural college summer school might attract to its beautiful location in the mountains students from all over the Nation. As a result of this purpose large fees have been paid to outside men and the venture has been an expensive one to the people of the State. A comparison of the attendance at the summer school of the university and the summer school of the agricultural college seems to show that while both have drawn students from outside the State, neither is in fact, nor need hope to become, a national summer school in the immediate future. Although it is doubtless true, as is claimed, that the attempt of the agricultural college to establish a national summer school has secured for the State considerable advertising in outside papers, the estimate that this advertising would have cost over \$27,000 does not compensate the State for the distortion of the legitimate purpose of its land-grant college nor for the actual deficit made good from appropriated money.

The summer schools of both institutions draw students fairly well from all over the State. Both, however, as is to be expected, secure



the great proportion of their students from the counties in which the institutions are located.

Of the 1,377 registrations in the various departments in the agricultural college summer school of 1924, 1,238 were in the department of education and psychology. Thirty departments, with an enrollment of 1,163, were represented in the agricultural college summer school in this year. At the university in 1924, 23 departments enrolled 1,053 students.

The commission recommends in view of these facts and in view of the needs of the State considered elsewhere in this report that both institutions continue to offer summer-school work for educational officers and for teachers especially. It recommends further that each of these summer schools develop graduate work in the major fields peculiar to the institution. Unification and coordination of the work of the two summer schools should follow lines paralleling the distinctive character and function of each institution.

#### EXTENSION

The university extension division is one of the major projects of the university and the director has the rank of a dean. The program developed by the university covers the usual lines of correspondence and class instruction and various other services, such as motion pictures, library, and boy-scout work. Extension at the agricultural college consists naturally of agricultural extension, common to all land-grant colleges, and general extension work very similar to that at the university. There is little or no conflict between the general extension division of the university and the agricultural extension work, except in the field of home economics, which has led the commission to call attention at another point to the need for coordinating the work in home economics carried on by the two institutions and the State department of education. However, in the field of correspondence and class extension work in subjects taught in common by the university and by the agricultural college more complete coordination is desirable.

It is clear that the same subjects must be taught by the two separate institutions in their residence work. This matter has been discussed in connection with the consideration of the school of arts and sciences. However, such instruction is not competitive in any real sense, since the students are committed to one institution or the other. When the two institutions, on the other hand, carry the work out into the State by means of correspondence courses or class instruction they have a common campus, the State itself, and the competitive features of the work are necessarily emphasized. In Utah this competition is no worse than in other States which have



not taken definite steps to coordinate the extension work of their two institutions.

The commission, therefore, recommends that a committee designated by and reporting to the board of higher education be created, with representatives from the university and the agricultural college and with a member of the board itself or of the State department of education as the third member, for the purpose of coordinating and unifying and planning the extension work done in the State by the two institutions of higher learning. It should be the function of this committee to recommend to the board of higher education methods and programs for the extension work of the two institutions throughout the State, and also to represent the board of higher education upon the commission which this report recommends be set up under the leadership of the State department for the purpose of planning and coordinating an extension program participated in by all of the extension agencies of the State. Details with reference to the extension work of the two higher institutions and of its relationship to similar work throughout the State will be found in the chapter upon Adult Education.

#### THE GOVERNING BOARDS

This preceding résumé of the points of conflict between the university and the agricultural college, together with the commission's recommendations concerning each field of friction, serves to introduce and to emphasize the need for some thoroughgoing method of coordinating the higher education carried on by the State of Utah. The commission has examined the facts in so far as it could find them; it has sought the opinions of officers of both institutions, of the boards of both institutions, of outside disinterested citizens, and of special interests organized for the purpose of securing one or another object. It is clear that the presidents, the boards, the student bodies, the graduates, and the former students of the university and of the agricultural college have taken sides in a controversy which is wasteful of both money and energy.

The legislature has twice attempted to secure coordination by legislation. In 1921 an act was passed designating the State board of education as a board of educational coordination. Although this act did not go into effect because of technical defects in its passage, it expresses in brief form the purpose the board was intended to serve as follows:

The purpose and object of the board shall be to determine which courses of study and departments shall not be duplicated in the State educational institutions and to coordinate the courses of study and departments of the several State educational institutions, and to direct the elimination of any duplicated work in the said institutions; and it is hereby made the duty of the board to visit such institutions for the purpose of investigating the work offered and



conducted by such institutions, whenever it may deem necessary; provided that the board is not authorized to transfer from one State educational institution to another any course of study or department prescribed for such State educational institution by the laws of Utah.

Act 100 has already been referred to and discussed. Both of these laws attempt to throw the burden of regulating the two institutions upon the State board of education, a board which, as constituted, is certainly not prepared to exercise this function. The presidents of the two institutions are members of the board. They have a vote with other members of the board. They doubtless, in educational matters, are more influential than other members of the board. They also may be presumed to exercise as much political influence within the State as any other two members of the board.

The authority to visit which the act of 1921 conferred is by no means an adequate basis of information in regard to the educational activities and purposes of the two institutions. Members of the board of education, of the boards of the university and agricultural college admit that they have no continuing means whereby they can determine what is going on or what changes should be made currently. It is only at times of open and obvious distress that their attention is called to acute conditions. No means is provided for arresting disorder until it has already become acute.

Further, it is questionable whether the personnel of the board of education is so far superior or so much better informed than the personnel of the boards of the agricultural college and of the university that it may logically and safely venture to regulate the procedure of the two boards when the interests or viewpoints of the two boards are opposed. Clearly it is highly desirable that it be made to the interest of the body controlling the university and the body controlling the agricultural college that the two institutions be managed to accomplish the one purpose of providing higher education for the State. Aggrandizement of an institution as such at the expense of the educational interests of the State may be stopped apparently only when those in control do not represent the interests of one more than the interests of the other.

To this end, therefore, the commission recommends that a board of 10 members including the State superintendent of public instruction, ex officio, appointed by the governor and confirmed by the senate, serving without compensation for a term of nine years, to be known as the "State Board of Higher Education," be substituted for the board of regents at the university and the board of trustees at the agricultural college. One member of the board should retire each year and not be eligible for reappointment during a period of three years. In order to put this recommendation into effect the



law giving the State board of education the duty and authority to eliminate undesirable duplications as respects the two institutions will have to be repealed. Numerous laws respecting the administration of the two institutions and their respective boards should also be repealed.

The commission recommends further that the State board of higher education employ, upon the nomination of the two presidents of the institutions or upon their agreement, a competent research and financial secretary, to have charge of the business offices of the two institutions, to work out comparable budget forms and procedure, and to make studies involving comparable statistics concerning the respective needs of the two institutions; in other words, that the board be equipped with a competent continuing agency for gathering information and arranging it in form intelligible to the lay members of the board and the people of the State. This information would then serve as a basis for the decisions and action of the board.

The State board of higher education should approve individual courses in the two institutions; should direct investigation into topics about which question is raised among its own members, and should encourage its research secretary to carry on independent studies and fact-finding investigations with reference to the work of the two institutions. The financial and research secretary should, in addition, cooperate with the State superintendent of education and with his research staff to formulate for the consideration of the board of higher education means and methods whereby the work of the higher institutions may be more closely correlated with that of the system of common schools.

No doubt it will be necessary to provide a substantial salary in order to secure a research man of the character and ability to serve the needs of the board of higher education and of the State. No restrictions with reference to his employment other than those specifying competence to perform the work necessary should be imposed by legislative action or by the board itself. The board should be free to select the best man available from any part of the country.

In case the people of the State do not find the commission's proposal for a single board to be acceptable, the commission wishes to suggest that if two boards are retained, certain changes in their composition and in the provisions governing the boards be put into effect. The number of members of each board should be reduced to 10, including the State superintendent of public instruction, ex officio, as a member of both boards. The other members should be appointed by the governor for a term of nine years, one retiring



each year. Each board should set up its own machinery for maintaining a continuous self-survey of its institution. Means should be taken to insure that the work of these two self-survey agencies should be continuous and comparable in form and content. This may be accomplished perhaps by reference to the research organization recommended for the State department of education, if such recommendation is adopted.

Whether the idea of one board of higher education is acceptable or whether the two boards are retained in the revised form suggested, the commission wishes to urge that careful consideration be given to the geographical distribution of board membership throughout the entire State. For this purpose the seven judicial districts may provide the natural basis for the distribution. Provision should be made whereby it is not necessary to call together the board for a meeting every month in order to pass upon bills, as is the practice at present. The board should meet quarterly and the executive committee should be authorized to carry on necessary business in the interim.

The commission makes the above recommendations after very careful consideration of another proposal which has considerable strength among certain groups in Utah. The senate in 1907 passed by a two-thirds vote a proposal consolidating the university and the agricultural college at the university. The house was 26 to 18 in favor of it. Although this was 20 years ago and is somewhat ancient history, the commission found men who still advocate a central location for the two institutions and their union under one administrative officer. In every case advocates of this plan propose that the location of the united institution be at Salt Lake City. The arguments advanced are that half of the population of the State can reach the university in an hour; that practically every one in the State visits Salt Lake City once or twice a year and could take advantage of the occasion to visit the agricultural college and other educational exhibits at the institution, which they would never see as long as the agricultural college is located at Logan. It is argued that Salt Lake City is within easy reach of the best dairies, fish hatcheries, poultry plants, gardens, and farms in the State; and that the university now occupies some of the best ground in the State for agricultural experiment purposes. The commission believes, however, that this view leaves out of consideration certain human factors of loyalty to place and institution which can not be disregarded. Further, it questions whether the additional investment in plant in order to accommodate agricultural work at Salt Lake City would be justified. The natural growth of the university will speedily require all of the land now available. Management under common direction



of the kind recommended will result in unified and economical service to the State and will make unnecessary such a violent uprooting as removal of the agricultural college to Salt Lake City.

#### DUPLICATION BETWEEN STATE DEPARTMENTS AND INSTITUTIONS OF HIGHER EDUCATION

Discussion of duplication in the State seems to be confined largely to matters of conflict between the agricultural college and the university. The commission, however, discovers that there are certain other duplications involving State offices which might well be eliminated, although none of them is of serious character. Mention has already been made of the fact that the State board of education, the university, and the agricultural college all carry on extension work in home economics and that there is need for coordination of the activities of these agencies. The research agency provided for in the foregoing recommendations could doubtless handle this matter with little difficulty.

Similar question present themselves with reference to the health work and interests of the State department of health, the State board of education, and the two higher institutions.

The governor in his message to the sixteenth legislature on January 13, 1925, says, with reference to the State department of agriculture:

It has been suggested . . . that there has been duplication of effort between this board and the agricultural college and that the major portion of the activities of the State board of agriculture could be turned over to the college at a material saving of expense.

He expresses a belief that the proper approach to this problem is one of investigation. The commission wishes in this connection to give a word of warning against loading the agricultural college down with a whole series of tests for which no compensation is given and with regulatory duties which in fact can not be organized for purposes of instruction and which do not present aspects of research value.

In 27 States these duties, so far as they relate to agriculture, have been conferred on independent officials or State boards, as for example, the board of agriculture; in nine States these duties are divided between such State officials and the State agricultural college; and in six States they are carried on only by the agricultural colleges. It will be seen, therefore, that State officials and State boards are doing much more of the police and regulatory work than the agricultural colleges. If the opinions of agricultural college officials prevail, the agricultural colleges will be entirely relieved of this work. Statements secured for the commission from 41 of the agricultural colleges in the country showed only four institutions favorable to the agricultural college performing these duties and 37 opposed. (U. S. Bur. of Educ. Bull., 1923, No. 40, Kansas Survey Report, p. 107.)



In view of these facts the commission recommends that the State board of agriculture continue in charge of the regulatory work of the State. It should maintain close connections with the agricultural college so that the agricultural college may have opportunity to do testing, with proper compensation, and to carry on such investigations as it may desire for purposes of training. The agricultural college should stand ready to aid the State board in cases of difficulty which involve real problems of research.

The commission has proposed in connection with its discussion of home economics that a cooperative arrangement be made by means of which the time of the State supervisor in home economics be divided among the State department of education, the university, and the agricultural college. A somewhat similar division of time between the State department of education and the institutions primarily concerned should be made in the case of the supervisors of agriculture and of trades and industries, since supervisory work does not completely and most usefully require the full time of these supervisors.

Utah sends a very large portion of its youthful population to its institutions of higher learning. It should therefore be interested in the question as to whether all of the human material sent is carefully selected and well prepared to take advantage of the opportunities offered by the State in its higher institutions. It requires no deep thought to reach the conclusion that it is wasteful to send poorly prepared students and students too immature or by native ability incompetent and not fitted to take advantage of the expensive plant and personnel at the university and the State college. Many methods of selection have been proposed and are in operation singly and in numerous combinations in various States.

Clearly one of the obviously desirable steps to be taken in Utah is that of classifying the high schools of the State. This work should be carried on by the State department of education, and will be discussed in the chapter dealing with secondary education. It is mentioned here merely to emphasize its importance in assisting the higher institutions to know better the quality of the student material they are getting from the secondary and preparatory field.

Somewhat more formal methods have been proposed and may be used singly, as some of them are at present, or in combination. The academic record of students is required at the present time and no material change in this respect should be made. An intelligence test is offered by the university and by the agricultural college after the student comes to the institution. It would seem highly desirable and undoubtedly it would make the test more useful to the principal of the secondary school in providing proper guidance and advice if



the test were conducted in the high school under the supervision of the State department and in cooperation with the higher institutions. This would provide a record of every student prior to admission to the institution and might be used to help determine his suitability for higher education.

Another form of record which will in the future prove to be more and more important is a personal score card filled in by the student's high-school teachers and supervisors. A score card may be devised which will rate those intangible but highly important characteristics of mind and disposition which determine even more than do the formal tests of intelligence the record the student will make in college. Some higher institutions with a limited enrollment are finding it possible to supplement the record of the personal score by personal interviews with the prospective students prior to acceptance.

All of these means may be combined. Graduation from a high school of the first, second, or third class, consideration of the academic record, judgment of his personal qualities by former associates and superiors, a record of the student's qualifications as determined by achievement and intelligence tests, and personal contact with the prospective student on the part of college and university officers, may each contribute its part toward determining whether the student should be admitted to the institution. These means may also serve as a basis for advice in planning the student's course after he is admitted and in determining the kind and degree of special treatment by way of instruction, supervision, and self-direction which may profitably be accorded, especially during the early stages of his college course.

In this connection close cooperation between the State high-school teaching force, the State department of education, and the higher institutions should be maintained and joint efforts directed toward improving the output of the schools. The university uses a measure of the high-school product which is both profitable and interesting. Its use might well be extended and the people of the State might well develop considerable pride in the results of such measurement if they are given an opportunity to understand its meaning and uses.

The following brief description of the method is introduced here in the belief that the people of the State will be interested and will desire to secure the further advantages to be derived from the wider application.

The record of the student in the university is expressed in honor points computed as follows: Three honor points for each credit hour of "A" grade; two honor points for each credit hour of "B" grade; one honor point for each credit of "C" grade; no honor points for each credit hour of "D" grade; minus one (-1) for each credit hour of "E" grade. Credit obtained by transferred credit



is reckoned as of "C" grade. A student's average grade or ratio is computed by dividing the total of honor points received by the total number of credit hours. The student whose ratio in all his work is not less than 2.5 is regarded as having attained very high distinction and if his ratio is not less than 2.15 as having done most excellent work.

On the basis of this point system the university has been rating the high schools which send five or more freshmen to the institution. The total number of points made by the students from a specific institution is divided by the total number of hours registered. For the four quarters in 1925-26, 24 high schools sending five or more students were rated and secured an honor ratio as follows: 1.44, 1.34, 1.26, 1.25, 1.24, 1.23, 1.22, 1.15, 1.12, 1.11, 1.10, 1.06, 1.00, .98, .97, .96, .95, .93, .88, .82, .78, .77, .63, .58. The average standing of the freshmen from these schools for the fall quarter was 1.14.

It is interesting to note that the ratings for high schools show a steady improvement. In 1924 it was 1.08; in 1925, 1.13; and in 1926, 1.14. However, this improvement may or may not have been due to the fact that the schools were informed where they came in the order of rating their students. It is probable, however, and the commission is so informed, that in many instances high-school principals are somewhat more careful about the preparation of their students for the university and about the students whom they recommend for the university course, because they realize that the poor student will affect the record of their schools.

It is believed that the information obtained would be of great value if the product of all the high schools of the State were measured in this way by both the State institutions, and by the private institutions also if they should care to do so. If, in addition, intelligence tests were given in all high schools, the two sets of figures would show correlations which might serve to point the way to more efficient expenditure of money spent on education as well as to indicate desirable changes in educational methods and organization.

Quite frequently discussions of more careful selective processes for admission to higher institutions of learning assume that mortality during the freshman year is almost altogether due to lack of ability on the part of the student or to lack of adequate preparatory work on the part of the secondary school from which the student comes. In recent years, however, many higher institutions have recognized that the change from the close supervision of high-school conditions to the freedom of college life is so extreme and may so disturb the student that it is one of their functions to help him make the transition and adjust himself to the different conditions of life and instruction which he finds in the college. A new spirit of self-



examination is also developing in several institutions with reference to the character of the instruction which college and university teachers impose upon their students. It has for a long time been asserted that college teaching is the poorest kind of teaching in the whole range of the school system, but until recently little serious effort has been made to bring about important improvements. It would be advisable for the higher institutions of Utah, in line with tendencies elsewhere, to utilize further such devices of adjustment as the freshman week, orientation courses, segregation of students in accordance with abilities as revealed by achievement and intelligence tests, adaptation of subject matter and methods of instruction to suit such classification, and, above all, insuring that the strongest and most experienced teachers interested in and in sympathy with the needs and problems of freshmen be assigned to their instruction.

Careful selection of those who are able and willing to meet the requirements of the standardized courses now offered in the higher institutions of Utah will lead inevitably to the exclusion of many who are now admitted to the college and university or to these students being guided into the shorter completion courses mentioned below.

Admission to the institution for the purpose of working toward a degree or preparing for a definite professional career is a worthy and desirable objective for students. It is necessary that the higher institution provide the education and the training which such students require. It is wasteful of human abilities and resources, however, to provide no means of advanced training for those who are not working for a degree and for those who do not wish to devote themselves to a definite professional career.

Under the somewhat more extensive and careful selective process recommended above it will be necessary that more attention be given to providing educational opportunities for those who do not seek a degree or contemplate a professional life. Those who under a selective scheme devised to secure good professional and degree material would be excluded may be and should be provided for by means of special courses, short courses, two-year courses, extension courses, and junior college completion courses. Economy as well as satisfaction of human educational desires will be served by such work.

The agricultural college at the present time offers in many lines opportunity for persons who do not have the time or the money or the desire to pursue degrees, to secure the resident work which they really need and wish. Extension work at both the State higher institutions serves much the same purposes. Too frequently this provision of short-time and specific instruction has been interpreted to mean that these opportunities should be afforded in the practical

money-making times only. This is a mistake. When educational opportunities are extended in this way they should include the cultural and social as well as the practical and money-making. In other words, alongside of high standards of ability and training for those who need traditional or professional education, should go a building up of service courses of high merit for those who will satisfy themselves and serve the State in newer and less formal careers.

The survey commission felt that in all the higher educational institutions more attention might well be given to the housing and social life of the young people in attendance. Discussion of this matter with authorities of various institutions, State and private, led immediately to acknowledgement of conditions far from ideal, and the suggestion was made quite generally that much could be done to improve the situation if dormitories were provided. It was felt that dormitory life with its very close community restraint, and under the supervision of cultured men and women, would be of great social benefit.

The question of dormitories is much more than a question of a place to eat and a place to sleep. They may be made social centers and training forces more useful to students in many respects than are formal classes. The investment in a dormitory may give to the students of a State university or an agricultural college that somewhat intangible thing for which parents frequently pay large tuition charges in some of the institutions of the East. With respect to the girl students especially, other obvious benefits may be derived from dormitory life.

For the year 1924 the dean of women at the university reported that 931 girls registered in her office, of whom 254 were nonresident women students. Forty-four were doing light housekeeping, 210 were lodging and boarding, and 318 were working to support themselves in part at least. She reports great difficulty in securing suitable living quarters. Upon the campus the women's rest room is the only social center for the women, and it is used by the literary societies and as a first-aid room also.

At the agricultural college the dean of women reports 243 women students in 1924. As at the university the women all register with the dean of women. A small dormitory accommodating somewhat fewer than 50 students is available. The rest room for the girls is rather well equipped, but its facilities are frequently strained, especially during the summer session. Conditions at the agricultural college are not quite so acute as at the university, but improvement by means of greater dormitory accommodations is very desirable.



Accommodation for 125 additional girls in dormitories at the agricultural college and for three times that number at the university would be a good investment in the young womanhood of the State. If the taxpayers do not feel that this burden can be assumed, it would seem that private benefactors in the State might well be called upon to do so much for its girl students.

No careful inspection of the dining accommodations of the two institutions was made. The broadening of acquaintance and experience which may well be developed at mealtime, even though the style of service be cafeteria, seems to be lacking for the most part. When dormitories are constructed it might be well, unless other accommodations are made for good dining halls, to locate the dining rooms in the dormitories. These should be open to boys as well as to girls. Meals should be served under the supervision of instructors or other supervisors, with a reasonable amount of experience and polish.

Dormitories and dining halls constitute one of the most important means for the promotion and preservation of health. It should be the aim of the university and agricultural college not only to offer medical examinations, schooling in the theory of personal and home hygiene and public health and stimulation, to and opportunities for exercise, but to furnish all essential conditions for healthful living. In providing dormitories and dining halls there is the possibility of teaching objectively the fundamentally important subject of nutrition, while the hours of rest (as important as those of exercise) can be controlled.

It is the experience everywhere that well-ordered dormitory life conduces to better physical and mental life of the resident students, while the supervision of cases of illness, whether communicable or other, becomes safer and simpler.

When constructed the dormitories should be made self-supporting, not only with reference to maintenance but they should carry interest on the investment and also provide returns sufficient to create a fund whereby additional dormitories required by natural growth of the institutions may be financed.

The experience of Kansas in securing dormitories for its girl students through legislative action and the experience of other institutions in securing dormitories through private benevolences are available in printed form. There is no reason why, if the original costs of the building were underwritten through private interest, the loan should not be repaid by means of rentals. In other words, the dormitory may be made, if not a business enterprise, at least self-creating and self-sustaining.

In some institutions the control of the girls' dormitory is vested in one woman superintendent, a woman of culture, refinement, and



social graces, able to handle the business and domestic management of the dormitory. In other institutions a social director is in charge of social and cultural activities within the dormitory, while the business and domestic management is placed in the hands of another woman. Authorities are very insistent, however, that both these women shall be college bred, refined, and socially the equal of the other women of the faculty. Their function is of course not simply to develop the individual by corrective or suggestive example but to make to grow within the dormitory unit a sense of corporate life and responsibility.

The literature upon the subject of the management of women's dormitories is not extensive, but practice and available written expression of opinion both indicate that parallel to or coordinate with the personnel provided by the institution for purposes of management and supervision should be developed a managing and responsible student organization. The responsibility placed upon the officers or the leaders of this cooperative student agency should not, however, be great, at least not so great as to detract from other duties.

#### TEACHER TRAINING

Elementary and secondary education in Utah is carried on by a great system of State and locally supported public schools. The State spends approximately \$10,000,000 annually for this purpose. It has more than 700 schoolhouses, in which 130,000 pupils receive instruction; 4,000 teachers are needed to carry on this work. This great system is under the direction and in certain respects under the control of a State board of education which is responsible that it function economically and in a way to serve the purposes for which the State maintains it. The point which it is intended to emphasize here is that this is a state-wide system administered by a definite body set up by the law and constitution of the State.

The State university and the agricultural college occupy a dual position with reference to this system. They are the climax of the State plan of public instruction and at the same time they have a service function to perform with reference to it. At no point is this service obligation of more importance or more obvious than in relation to the training of teachers for service in the State. In carrying on teacher training the higher institutions are more intimately subject to the body responsible for the administration of the school system of the State than in any other aspect of their work. This is most evident in connection with the responsibility of the State board of education and the State department of education for setting up requirements and qualifications for teachers and administrative school officials which the institutions must prepare their young teachers to meet.



Other portions of this report suggest to the State board of education certain changes and additions to the requirements laid down with respect to preparation of teachers. The survey commission recommends earnestly, therefore, that the university and the agricultural college prepare to meet these requirements in a spirit of helpfulness, service, and sincere cooperation. It may be well in this connection to point out some of the lines which these prescriptions may take and to suggest, in general at least, the nature of the service which the university and agricultural college should be prepared to give.

At the present time certain minimum training requirements and courses are prescribed by the State for securing the various classes of teachers' certificates granted by the State. Changes in these prescriptions, and in some respects more detailed definition of the nature of the work which should be offered, have been recommended by the survey commission in another part of this report. The university and the agricultural college should place at the disposal of the State department of education such information and advice as their special facilities permit and thus aid the State department to formulate the details of these requirements. Obviously, after the requirements are formulated, the university and agricultural college should lend their hearty support to effective enforcement through the work in their own departments and by means of the influence which they exercise throughout the State.

Doubtless one of the aspects of State requirement which will be changed is that concerning practice teaching. At this point will arise opportunities for cordial cooperation and assistance to the State department which will be of benefit not only in improving the teacher-training work of the State in accordance with State department requirements but which will also aid the institutions to improve their work in this line in accordance with recommendations made by this report with reference to the courses of each institution.

Since all of the educational leaders of the State, including the university and the agricultural college, seem to recognize that one of the weaknesses in the present school system lies in the lack of special training of State and county administrative school officials, it is hoped that the State department, in accordance with recommendations made by the survey commission, will formulate requirements and training for these positions. Again, it should be the pleasure and privilege of both institutions to assist the State department in this work, and when completed both institutions should make vigorous efforts to provide training of such nature that it may be possible for the State to obtain supervisors better than those contemplated by the prescribed minimum qualifications.



Selection of teachers with reference to their health and physical fitness is all very well, but it is placing the cart before the horse unless the student knows that he will be chosen upon this basis and has been duly prepared accordingly at the beginning of his training course. It is certainly unfair to allow candidates for the profession to spend two years in training for work for which, at the end of their course, they will find themselves disqualified by physical disability.

If the health of the child is the first consideration in education, it becomes incumbent on the training school that the teacher have personal experience of all the efforts put forth in behalf of the physical well-being of the child. The teacher should be the high priest of health work in this country and needs preparation accordingly for this high calling.

It is no more than logical that the State department should require that the applicant for entrance to the training school be physically fit, in a very broad sense, for the business of teaching. He should have a thorough examination by a physician approved by the department and responsible to the institution in which the student will train. If the applicant has such defects or diseases as are certain to unfit him for the work of teaching he should be refused admittance. If he is found to have defects or diseases which can be remedied (defective vision, carious teeth, and the like) he should be placed on probation for a period, and if the condition is not corrected he should be dropped from the school. The States have the right to say who shall enter their publicly supported training schools and at least one of them (Connecticut) has set this standard for all its teacher-training normal schools. With the present surplus of teachers in Utah we see no reason why such a regulation can not be put in operation to the advantage of all concerned.

The applicant having been found fit for the business of teaching, the subject of personal health should be emphasized and made practical throughout the training course, and adequate instruction in health examination, health instruction, and physical training given. Excellent work along these lines is being done in the teacher-training schools of Utah in the time allowed, but this is too brief. Moreover, with more time, courses in the practical application of the theory taught should be given in large part under those who furnish instruction in the theory of health examination and health instruction.

The State department should require of all teachers in training that they have at least two hours a week throughout the two years of their special training devoted to personal hygiene, school hygiene, health examination, and health teaching, including adequate practice in both examinations and teaching, and three hours a week through-



out these two years should be given to physical education. The time suggested for physical education is not more than should be offered any college student in any course and the teacher in training should spend part of this time in the practice of teaching this subject. At the present time only four hours a week for one term is devoted to health examination and health education, which is certainly insufficient for more than the theory of the subject.

Major courses for special teachers of health education or physical education are offered in the institutions of the State, and, as outlined in the bulletins, they are excellent in content, and in line with the recent tendency to the production of teachers better versed in physiology and hygiene and in methods of teaching these subjects.

With the preparation in physical activities now derived in elementary and secondary schools less time need be spent on this subject in special courses, and more time and care can be given to the turning out of teachers who know something more than gymnastics, dancing, and athletics.

The summer courses in hygiene and physical education offered by the university and college have attracted a large number of students, under-graduate and graduate. The additions to the regular faculty of widely known persons from other parts of the country is doubtless a stimulus, but in this day and generation no one has a monopoly of information or inspiration on these subjects, and it might be wiser to pay more for resident members of the faculty of sufficient ability to serve as drawing cards for the schools. These should be encouraged to keep in touch with progress in their special work by allowance of time and funds for visiting other institutions.

In further recognition of the responsibility of the department of education for the public-school system of the State the commission has in another place recommended that the function of certification be lodged exclusively in the State department of education and has provided in the proposed organization of the department for personnel properly qualified to attend to this work. At the present time the State university by law is permitted to certify graduates of its teacher-training courses. The same privilege is not extended to the agricultural college. In order that certification may be vested solely in the State department of education, the commission recommends that this privilege be removed from the State university.

Several private institutions of Utah, as well as the two State-supported ones, prepare teachers for service in the State. The courses of these institutions will, naturally, be designed to meet the requirements of the State department of education if they expect their teachers to receive certification. However, formal compliance with the regulations may range from mere adherence to the letter of



the law to sincere attempts to conform to its spirit and purposes. All institutions, therefore, including the State-supported ones, which desire that their prospective teachers receive certification from the State department upon the basis of graduation from their teacher-training courses should be subject to thorough and frequent examination and inspection by the State department of education. Such inspection may well cover the character and content of instruction and examination of facilities, such as the library and the laboratories available for teacher training. In addition it should be possible for the State Department, if it cares to do so at any time, further to test the product of the approved teacher-training agencies of the State by examination or by such other means as may seem advisable.

Clearly the obligation of the State-supported institutions of higher learning does not stop with cooperation in training to meet the minimum requirements for certification. They should hold themselves constantly at the service of the State department and its research agency in carrying on investigations into specific conditions in the State and researches in the general field of educational theory and practice. Nor should their own work of instruction be delimited either in scope or quality by such minimum requirements as may be set up. If the teacher-training work of the two institutions is to serve the State educational system in the widest sense, it will be desirable for them to go at many points beyond the minimum requirements set up and to include more than is necessary to enable students to comply with the regulations. If they are to perform their fullest function of educational leadership, it will be necessary for them in addition to initiate researches and experiments without reference to the immediate needs of the research agency set up in the State department.

#### TRAINING IN SERVICE

Early in the history of agricultural extension it happened frequently that the specialists of the land-grant college entered the territory of the county agent charged with the carrying on of the extension program without the knowledge of the county agent, and held meetings and promoted work in their specialty in other ways which were in no way related to and which in no respect contributed to the program of the county agent. This condition has in large part been corrected in all the States through better organization and understanding. It is mentioned here as an example of the kind of abuse that still exists to some extent in Utah in connection with training of teachers in service. It is sound theory that State and county school administrative officials are primarily responsible for the guidance and training of their teachers while employed in their schools. The experts and trained men of the university and



the agricultural college, through the extension service or through the schools of education, should offer their advice and assistance to State and county school officials in planning service training. Great care should be exercised, however, that their aid is cooperative and not competitive. The university and the agricultural college should take an active interest in helping the superintendent to plan his teacher training and should hold themselves ready to offer for him such courses as will in his opinion best contribute to the welfare of his schools. It is recommended, therefore, that courses in teacher training offered through extension be planned in conjunction with local and State school officials and that they be offered only when their consent and approval have been secured.

In this connection, also, it appears that in the past the extension services of the two institutions have sometimes designated local superintendents and principals as instructors in the university or the agricultural college, as the case may be, to carry on extension courses among the superintendent's own teachers. In some instances it appeared to the commission that this led to undue pressure to enroll in the extension courses of the institution and that sometimes also sufficient care was not exercised to insure that the qualifications of the school official designated to act as instructor were equal to those of the professor who ordinarily carries on the resident work of the same type. No doubt it is permissible to designate as extension instructors qualified persons not otherwise connected with the teaching staff of the institution, but because of the great likelihood that this will lead to abuses the commission recommends that only in the most exceptional cases should local school officials be designated for this purpose.

The agricultural college is by law permitted at present to give courses in pedagogy but is not permitted to give degrees in education. The State normal school is a part of the university, specifically so designated by law, and the university conducts courses in education as a State normal school and grants degrees in its school of education. In view of the close relationship of the agricultural college to the rural life and interests of the State and in view of its special fitness for certain aspects of teacher-training work the commission recommends that the present legal restrictions with reference to teacher training be removed and that the agricultural college develop teacher training as one of the major functions of the college, especially in those lines closely related to its peculiar character as a land-grant institution. Detailed recommendations in regard to the lines of this work which the agricultural college, in the opinion of the survey commission, should undertake and something in regard to methods of handling certain of its problems will be found in the section dealing with the agricultural college.



## THE UNIVERSITY

The catalogue of an institution is always one fairly reliable means of obtaining an impression of its purposes and work. When a prospective student examines a college catalogue he does it primarily for the purpose of learning what he has to do to enter, how much it is going to cost him to attend the institution, and whether the institution offers the work that he wishes. The catalogue of the University of Utah is clear and businesslike in its organization and method of presenting information and with few exceptions serves the purposes for which it is intended. In order, however, to determine whether the student can depend upon the information given by the catalogue in regard to the courses offered, information was compiled to show the number of terms' work actually given in 1924-25, the number of alternate terms of work which the catalogue plainly indicated were not to be given in 1924-25, and the number of terms of work which in fact were not given during 1925, although the catalogue would lead the student to expect that this work was to be given. This inquiry showed that the catalogue listed 1,074 terms of work, of which 109 were plainly marked "not available in 1924-25." Of the remaining 965 terms of work listed, 144, or approximately 15 per cent, were not given. In the—

Department of Spanish, 3 of the 23 terms, or 13 per cent, were not given.

Department of engineering, 30 of the 124 terms, or 24 per cent, were not given.

Department of education, 10 of the 37 terms, or 27 per cent, were not given.

Department of hygiene, 4 of the 13 terms, or 30 per cent, were not given.

Department of metallurgy, 7 of the 23 terms, or 30 per cent, were not given.

Department of physics, 6 of the 17 terms, or 35 per cent, were not given.

Department of pharmacy, 12 of the 33 terms, or 36 per cent, were not given.

Department of mining and milling, 6 of the 14 terms, or 43 per cent, were not given.

Department of German, 16 of the 35 terms, or 45 per cent, were not given.

Department of mining and metallurgical research, 3 of the 6 terms, or 50 per cent, were not given.

Department of western history, 9 of the 14 terms, or 64 per cent, were not given.

It is realized that in several instances courses were not given because the demand for them was not sufficient to justify organizing the classes. In one or two other cases it is believed that readjustments within the faculty by reason of absence or shortage made omission necessary. However, it would seem better to organize courses upon demand without previous promise rather than to make promises which perhaps a few students will accept upon their face value, only to find the work not actually available to them.

In this connection the following interesting table was prepared at the request of the survey commission, showing the number of classes



in the various departments with from 1 to 5 students, with from 6 to 10 students, 11 to 20 students, and so on.

TABLE 17.—*Enrollment by classes in the university*

(Autumn quarter, 1925-26)

Studies	1-5	6-10	11-20	21-30	31-40	41-50	51-60	61-70	71+
Anatomy	3		2	3	1				
Art	4	4	5	1	1				
Bacteriology	1		2		2	1	1		1
Botany	2			1					1
Business	2	1	4	2	8	2	2	1	2
Chemistry	3	1	2			1	1		2
Economics			2			3	2	3	
Education	1		5	7	1		3		4
Engineering	7	8	3	5	7		1	1	3
English	1			11	16	4	1		3
French	3		4	5	2				
Geology	3	2		3					1
German	3	1	4	2					
Greek	1								
History				1					3
Home economics	1	3	3		1				
Hygiene							1		1
Latin		1		2	2				
Law			1	3	3	1			
Mathematics			1	1	1	4		2	
Metallurgy	3	1	2						
Military science and tactics	1	3	5	4	3	1	2	1	1
Mineralogy					1				
Mining	1	2	2						
Music	6		1	4		2			
Natural science				1					
Pharmacy		4	2	1					
Philosophy				1	1				1
Physical diagnosis			2						
Physical education (hygiene)									4
Physical education	6		3		4	2	1	1	6
Physics	2	1	1		1				1
Physiology				1					
Political science	2	1			1				1
Psychology	1				1	1			2
Public speaking	5		3	7	5				
Shop	1	1			1				
Social history	1				1				
Sociology	1	1	1		1			1	2
Spanish	1		5	2	2				
Western history				1		1			
Zoology	2	2				2			1
Total	68					25	15	10	40

It is interesting to note that during the autumn quarter 1925-26, 68 classes were conducted with from only 1 to 5 students. On the other hand, this chart shows that 90 classes with an enrollment of 40 or more were conducted. Forty of these classes had an enrollment of over 70. This is an excessive number of large classes. It would seem that some adjustment here might be possible. Fifteen departments showed one or more classes in the extremely small and in the extremely large grouping, i. e., 15 departments had classes with from 1 to 5 students only, and at the same time had one or more classes with 71 or more students. Of the 15 departments the department of physical education and the department of military science and tactics should probably be excluded, since large classes are justified in these two cases.

#### TEACHING LOAD OF INSTRUCTORS

Table 17 shows that of 83 instructors checked during the year 1924-25, 33 were carrying a load of more than 400 student clock-

hours. A student clock-hour is the instruction of one student for one hour. A schedule of 15 hours per week in the classroom is regarded as a normal schedule for an instructor. The national committee on standards states: "Teaching schedules exceeding 16 hours per week per instructor or classes (exclusive of lectures) or more than 30 students should be interpreted as endangering educational efficiency." Upon the basis of these standards it is apparent that on the average a full schedule should give an instructor not much in excess of 300 student clock-hours. Yet in the University of Utah in 1924-25, 24 instructors had schedules in excess of 500 hours; 8 had schedules in excess of 1,000 hours. Nor was it in subjects in which the lecture method might be presumed to account for this large schedule of student clock-hours that the greatest load was found placed upon instructors. In engineering five instructors had loads in excess of 500 hours and three of them in excess of 1,000. It would be well to consider carefully the matter of so increasing the instructing personnel of the university that the load of certain instructors may be materially reduced.

TABLE 18.—Student clock-hour loads of instructors

Studies	Number of instructors with—									Total column 3-9
	1-100 student clock hours	101-200 student clock hours	401-500 student clock hours	501-600 student clock hours	601-700 student clock hours	701-800 student clock hours	801-900 student clock hours	901-1,000 student clock hours	1,001 student clock hours	
	1	2	3	4	5	6	7	8	9	
Anatomy	1									
Ancient languages						1				1
Anthropology and sociology			1						1	2
Archaeology	1									
Art		1								
Bacteriology and pathology			1						1	2
Business				1		1		1		3
Chemistry		1	1						2	3
Economics			1							1
Education		1	1			1				2
Engineering		2	1	1		1			3	6
English	2	1	2	1						3
Geology					2					2
History and political science				1	1					2
Home economics	1									
Law	1									
Mathematics and astronomy		1		1	1		1			3
Metallurgy		1								
Modern languages	3	1								
Pharmacology		1								
Physical education		1								
Physics			2						1	1
Psychology	1						1			1
Public speaking	1	1								
Spanish		1								
Zoology			1							1
Total	11	13	9	5	4	4	2	1	8	33



## UNIVERSITY PLANT

Considerable complaint was heard at the university in regard to its cramped and restricted plant. This complaint appears to be justified with reference to several matters.

There is no provision for an infirmary. It is almost inconceivable that an institution of the size and standing of the University of Utah should not make adequate provision for an infirmary. It would seem that a mere statement of the fact that none is in existence would be sufficient to insure that provision be made for it.

The university's present auditorium will accommodate fewer than 20 per cent of the students of the university. The advantages to an institution of assemblies which bring together all or a large proportion of the student body are admitted everywhere. Provision should be made for an auditorium which will accommodate at least half of the students of the institution.

The gymnasium was doubtless adequate in its day, but with new needs it has grown, by sundry additions and alterations, into an ill-arranged, rambling structure which is anything but a model of what a university house of health should be. With changes recently made, the faculty will be relieved from cramped quarters and the examination and treatment rooms will be more suitable. These improvements, however, do not make the building all that is to be desired. The rooms for class exercise are commodious, but they are not bright and cheerful. This is especially true of the women's gymnasium, which could be made at least a hundred per cent more inviting by suitable color changes in the walls and ceiling. The bathroom and showers for the girls should be put into condition conforming to modern practice in order to insure respect for modesty and privacy which it is difficult to maintain under present conditions.

The facilities for out-of-door exercise are ample and are being developed for use of the general student body as well as for the favored athletic few. There is need for more tennis courts and other improvements of this nature.

It is very desirable that improved library accommodation be provided. At present the main library is housed in the Park Building, and three other buildings contain special collections. The total space used is 16,195 square feet. Adjustment in the use of existing buildings, to provide suitable additional space for library uses, seems difficult and at best largely a makeshift which should be endured only until such time as private benevolence or State appropriations furnish funds for the erection of a building architecturally and practically worthy of the library of a great university.

Complaints with reference to crowding of classrooms led to a direct investigation of these matters. It was found that there are

available in the university 72,505 square feet of classroom and laboratory space, with an enrollment of 2,446. This gave, in 1924-25, almost 30 square feet of classroom and laboratory space per student. These figures are of little importance, since they assume that all students would be using the space at one time. If this were the case, approximately four hours a day would be sufficient to handle all of the classes. More detailed results of this investigation of the use of classroom and laboratory space are shown by the following table:

TABLE 19.—*Use of classroom and laboratory space, 1924-1925*

Buildings	Room number	Hours per week	Per cent of normal use
Park building	403	19	60.3
Do	404	17	56.6
Do	423	12	40.0
Do	424	9	30.0
Physics building	4	8	26.6
Do	9	13	42.3
Do	10	7	23.3
Do	11	2	6.6
Do	12	2	6.6
Do	33	11	36.6
Do	42	18	60.0
Do	72	23	76.6
Museum building	9	15	50.0
Do	10	25	83.3
Do	36	4	13.3
Do	37	22	73.3
Do	38	17	56.6
Do	63	23	76.6
Do	(1)	26	86.6
Medical building	103	10	33.3
Do	206	11	36.6
Do	207		30.0
Do	309	7	23.3
Industrial education building	4	8	26.6
Do	11	15	50.0
Do	12	20	66.6
Do	27	16	53.3
Do	30	3	10.0
Do	41	21	70.0
Do	42	23	76.6
Do	44	20	66.6
Do	45	22	73.3
Do	49	13	43.3
Liberal arts building	2	22	73.3
Do	4	25	83.3
Do	5	28	93.3
Do	8	23	76.6
Do	9	19	63.3
Do	13	23	76.6
Do	29	25	83.3
Do	31	27	90.0
Do	32	27	90.0
Do	35	23	76.6
Do	36	28	93.3
Do	61	22	73.3
Do	63	28	93.3
Do	64	20	66.6
Do	66	23	76.6
Do	67	23	76.6
Do	68	18	60.0

<sup>1</sup> Assembly.

Number of class rooms and laboratories used: 5 hours or less, 4; 6-10 hours or less, 7; 11-15 hours or less, 7; 16-20 hours or less, 8; 21-25 hours or less, 16; 26-30 hours or less, 8.

It is assumed that normal use of a classroom is 30 hours per week, i. e., 6 hours a day for a period of 5 days. Upon the basis of a 30-hour normal use, the 50 rooms covered by the tabulation are,



so far as as time is concerned, used only about 60 per cent of capacity. In other words, the average use of each classroom is only 18 hours per week. Thirty hours normal use per week is a very low standard of room employment, since Saturdays are available and the school day may extend from 8.30 to 5.30, eight hours, with one hour out for lunch, if it is really desired to organize the work to make complete use of the plant. Upon such revised scheduling it should be possible to use each room to a much larger extent than is the case at present. It was stated, however, in objection to rescheduling classes to take advantage of Saturday morning and of afternoon hours throughout the remainder of the week, that students will not attend late afternoon and Saturday classes, and that the faculty does not like to have classes at these hours. It seems improbable that any very strenuous objection would be presented by faculty members provided faculty schedules are arranged so that they are reasonably compact. The objection of students may well be overcome by scheduling the required and important courses at the hours that are now looked upon as "off" hours.

The previous table shows that 68 classes have 5 or less students. It may be assumed that half of these classes for one reason or another should be continued for this small number of students. If, however, 34 of these small classes should be abolished, room space made available would provide a very substantial leeway. It is true, however, that some of the large classes included in the same table might profitably be broken into smaller sections and take up any slack caused by abolition of the extremely small groups.

Although it is a matter of relatively minor importance and no detailed check was made to determine the extent of the disorder, it may be well to call attention to the condition of the university plant with reference to its housekeeping. The commission got the impression that the caretaking of the university plant was rather slipshod and careless in some respects. Storage rooms and basement rooms, which came under the observation of the commission in several instances, seemed to be disorderly and the storage of materials unsystematized. The impression was created that perhaps equipment and material were allowed to deteriorate and might in some instances be so carelessly accounted for that waste might result. The proposal made in the biennial report of the university for 1922-24, that a stores and receiving department under the direction and control of the purchasing agent be established, would seem to be a method of insuring a more careful check, especially if such a department were organized to include a section whose function was the salvage of materials and equipment.



## ADMINISTRATION

It seemed to the survey commission that the load placed upon the president of the university is excessive. The attention which he is compelled to give to numerous details which might be attended to by other members of the university staff makes it impossible for him to give the degree of thought to the broader problems of the university and of higher education in the State which should be his chief concern. This condition was not due to lack of machinery or to the unorganized condition of the institution. It appeared to the commission to be due in large part to the fact that this organization was devised for protective rather than for operating purposes.

In brief, the agencies for administration set up by the rules, laws, and regulations of the university provide under the board of regents for 13 administrative officers, including the 7 deans or directors of the major divisions of the university. The president and the deans or directors of the schools and the secretary of the board of regents constitute the dean's council, which is intended to act in the capacity of adviser to the president. It is charged with routine administration and has jurisdiction in all matters of discipline.

Each dean of a school is also head of a department. There are in the university 35 departments of instruction and investigation. These departments are largely autonomous. In numerous instances they are not directly responsible by groups to the deans of school, but each head of a department deals directly with the president with reference to matters of his department. They are responsible for the expenditure of the funds appropriated for the department and represent the department in all relationships with other university authorities, with the students, and with the public. However, they do deal with the dean or director of the school in matters affecting the special interests of the school. Since a single department may serve two or more schools, the responsibility of the dean of the school for departmental matters and the cooperation of the department with the schools concerned are largely matters of personal ability to manage such relationships. There is little authority and no chain of responsibility in which the deans of the schools are important links.

Since deans of schools are also heads of departments, there is some tendency perhaps to look upon the deans' council as giving these deans an undue advantage in pressing the claims of their departments. In fact, it is felt that the deans represent their departments even more than they do the schools in which their departments are members. The dean is the executive officer of the school over which he exercises supervision, and he presides over meetings of the school faculty. The extreme independence of the departments, however, makes it impossible for the deans of the schools to take from the



president many of the burdens of administration which should properly be theirs.

The commission recommends that each department be responsible to and function through the dean of a school. This may be done without interference with the service functions of a department to schools other than that to which it belongs. Under this arrangement the commission recommends that the budget of the university be made by a uniform process of requests from the department heads through the deans to the president.

At no point does the difficult position of the president come more into evidence than in the organization and functions of the administrative council. The administrative council is made up of the president and deans or directors of the schools, ex officio, and a number of members elected by the university faculty by secret ballot in excess of the ex officio members. The administrative council has access to the minutes of the board of regents and it is "the direct medium of communication between the university faculty and the board of regents." The president is required to inform the council of proposed new appointments, removals, resignations, or changes in rank of the members of the teaching staff. The council is expected to approve or disapprove the action proposed by the president. In every case the council is required to transmit its views promptly to the faculty relations committee of the board of regents. Any differences arising between members of the faculty or between the president and members of the faculty, or between the president and any member of the university staff, may be referred by those concerned to the administrative council, in which event the council has full right to investigate the matters in question, and if thought best to make recommendations to the board of regents through its committee on faculty relations.

The council may upon its own initiative consider any problem of university administration or of the relation of the faculty members to the State, or any matter concerning the welfare of the university and shall transmit copies of all such deliberations to the faculty relations committee. \* \* \* It is also within the province of the administrative council to propose to the faculty relations committee amendments or additions to the regents' regulations for the government of the University of Utah.

In other words, the organization of the administrative council subjects the president at all times to the supervision of a group of his faculty. It makes it possible for any disgruntled member of the faculty to bring the president before a body of his own faculty for investigation and recommendation of judgment.

The commission is fully aware of the desirability of maintaining a democratic tone in university and college administration. It believes thoroughly in securing the interest of the university staff in



the affairs and administration of the institution by which they are employed. It doubts, however, whether any president should be called upon to accept the responsibilities and to carry out the duties of his office under conditions such as those which prevail at the University of Utah.

Historically, the reason for the creation of the administrative council is evident. Historically, also, it has been shown from the beginning that the exercise of its functions has hampered the administration, increased its difficulties, and failed to promote a democratic attitude toward the institution. Its influence has been that of promoting contention and fear. The primary purpose of its creation, the insurance of a fair hearing and consideration in case of a dismissal or threatened dismissal, may be accomplished without an organization which is so irresponsible.

The commission recommends, therefore, that the administrative council be abolished. It recommends further that its functions in general be assumed by the deans' council, to which the general faculty should be permitted to elect from its own number two additional persons who, with the approval of the president, may serve as members of the deans' council. The function of the council, however, should be advisory. The commission recommends further that the full professors of the faculty constitute a senate before which matters of general policy and of dismissals may be brought.

It is inconceivable to the commission that any organization be permitted to carry on in the university which shall pass over or around the president in dealing with the board of regents. All communications from any members of the faculty or organization within the university to the board of regents should be through the president of the university.

Under the proposed reorganization the committee recommends that the heads of the departments and the deans of schools initiate appointments, and that the president make all nominations for positions on the faculty direct to the board of regents, after consultation with the deans and with the heads of departments directly concerned.

In this connection the matter of tenure may well be discussed. Under present regulations, "after three years of satisfactory service all members of the university staff are considered permanent, provided their service is still needed and continues satisfactory, and provided also that funds remain available. The appointments of all other members of the university staff shall be made or renewed annually, except that appointments to professorships may be made for two years." The statutes of the State, section 5530 (2300), provide that "All contracts hereafter made with professors, instructors,



or employees, whether of a definite or indefinite time, shall be subject to termination at the will of the board, or of its executive committee, if the board be not in session, when the interests of the university so require." A chairman of the board of regents has in the past taken the ground that all members of the faculty must be reappointed every year. This position rests upon a legal opinion that a contract can not be entered into by the board for a period longer than a year. Although this technical interpretation has not operated to prevent continuous tenure of educational officials during good behavior, outside men have hesitated to accept employment, since they have no sufficient assurance that the right to refuse reelection may not be exercised arbitrarily.

If in fact, the law places this restriction upon the right of contract, and there seems to be some doubt about the matter, it should be modified to permit longer periods of contract in the case of the presidents and of members of the faculties of both the university and agricultural college of the rank of associate professor and above.

The university regulations now operate to provide permanent tenure for all members of the faculty after three years of service, even though there may exist a legal necessity of annual election. In the opinion of the survey commission it is advisable that the rule with respect to tenure be modified in the interests of securing the best timber available for positions of the highest rank in the institution. It recommends, therefore, that the president and all members of the faculty of the rank of associate professor and above be placed upon indefinite tenure when employed and that other members of the faculty be subject to annual reappointment. This will permit, under the present scale of salaries, of the appointment and continued employment of men as assistant professors, without giving them indefinite tenure.

#### FACULTY

In addition to the organization and administrative devices suggested above, whereby the load upon the president of the university may be materially reduced, it would seem highly desirable that the university should be provided with a dean of men and with a dean of the faculty. A dean of men may contribute almost as much to the education and welfare of the boys of an institution as the dean of women contributes to the development and content of the girls in the university. A dean of faculty would relieve the president of many detailed problems in general administration.

The authorities of the State apparently recognize that employment in the University of Utah is somewhat more difficult than in the great centers of population. They have realized that scholars and great teachers may well feel that work in Utah takes them from



intimate contact with the scholarly opportunities and associations that are offered by large cities in the East and upon the Pacific coast. They have, it appears, attempted to provide, therefore, a salary schedule as generous as circumstances permit. The schedules actually in use in the University of Utah are shown by the following table in comparison with schedules of other States having somewhat similar conditions of employment. No doubt as resources are increased it will be the desire of Utah to make the normal and typical salaries actually paid approach somewhat more closely the maximum which the university schedule allows.

TABLE 20.—Salaries, 1925-26

Institutions	President	Deans		Professors		Associate professors		Assistant professors		Instructors	
		Maximum	Normal or typical	Maximum	Normal or typical	Maximum	Normal or typical	Maximum	Normal or typical	Maximum	Normal or typical
University of Arizona	\$10,500	\$6,600		\$7,000		\$3,900		\$3,200		\$2,400	
University of Arkansas	10,000	6,000	\$4,250	4,000	\$3,600	3,300	\$3,050	3,000	\$2,600	2,700	\$2,000
University of Kansas	10,000	6,500	5,000	6,500	3,600	3,750	2,800	3,000	2,400	2,200	1,800
State University of Montana	6,000	4,700		4,000		3,000		3,000		3,000	
University of Nevada	12,000	5,750	4,500	4,100	3,600	3,200	2,700	2,900	2,400	2,700	2,200
University of North Dakota	7,500	5,000	4,500		3,800	3,300	2,700	2,800	2,500	2,300	1,800
University of Oklahoma	12,500	6,000	4,500	4,200	3,600	3,400	3,200	2,800	2,600	2,000	1,800
University of South Dakota	7,500	5,000	4,500	3,600	3,000	3,300	3,000	3,000	2,500	2,200	1,800
University of Utah	8,000	4,300	4,300	3,600	3,600	3,300	2,900	2,820	2,300	2,100	1,800
University of Wyoming	10,000	5,000	4,220	4,320	3,300	3,220		3,100		2,700	

<sup>1</sup> House in addition.

Salary schedules, however, are not the only inducements offered to instructors in the university. Provision is made for sabbatical leave as follows:

After six years of service on the university staff and every seventh year thereafter a professor, associate professor, or assistant professor may receive leave of absence for one year on half pay for the purpose of better fitting himself for his work. Acceptance of such leave of absence binds the recipient to remain in the service of the university for one year after his return at the salary which he received for the year previous to his leave of absence.

This compares very favorably with similar provisions in other institutions. As a matter of fact the university has made special provision even in the form of financial aid to permit members of the faculty to pursue further study and to prepare themselves better for work in the institution. In addition, a fund is in existence and is drawn upon freely to provide that the members of the faculty may attend meetings of learned societies and associations. In the administration of this fund, which pays railroad fare only, the authorities have taken pains to see that the younger men as well as the more mature and better established professors have opportunity to



attend meetings of national or regional organizations. While it is felt that still further provision for such outside contact is desirable, the funds available permit each member of the faculty to make one such trip every third year.

#### LIBRARY

The library of a university is more than a part of its physical plant; it should be the center about which the work of the departments and schools of the institution revolves. Frequently such is not the case. This may be due to the fact that the facilities are inadequate. Sometimes the building or the reading rooms provided lack convenience and comfort necessary for library work. Sometimes the service in a library is left so largely to students that its usefulness is destroyed quite as effectively as would be the case if similar procedure were followed in the classroom. Sometimes the necessary books themselves are not available. Institutions usually recognize these causes for the failure of the library and are willing to take the necessary steps to correct them. The University of Utah is no exception in regard to these matters. However, a somewhat less obvious cause for failure of the library to function as the center of the institution may be the character of the instruction given in the various departments. Frequently the instruction in an institution is so planned that the student does not need a great collection of books; the professors are content to regard the library primarily as a collection assembled for their own mature convenience. Students need use the library only to the extent of consulting a few references and required collateral readings. So far as the student is concerned a comparatively small selection of books with a great number of duplications of the reference texts is all that is necessary under these circumstances. Further studies should be made in Utah as well as elsewhere to determine to what extent the instruction of the institution is such as to make the library a laboratory as indispensable as the chemical and physical laboratories to the students of these subjects.

A committee of the American Library Association in 1923 set up certain standards for university and college libraries. Although these standards are tentative and have not yet won universal acceptance, they do provide an indication of what is desirable. Departure in great or striking degree from the norms here set up would indicate that serious consideration should be given to the subject. These standards base library expenditures upon the cost of books, including periodicals, but do not include binding, payment of a trained librarian, or purchase of supplies. They cover annual revenues only and do not contemplate provision for starting new departments in the



institution. In case new departments are started special appropriations for the initial cost of books should be provided. The University of Utah has already recognized this principle by providing a lump sum for the purchase of books for the law library. The standards of the American Library Association provide for an annual expenditure for books of \$6 per full-time student. Even though some of the higher institutions of good grade do not spend this much for books, in a well-rounded institution making library provisions for its undergraduate and graduate students and for its faculty in liberal arts and the professions this sum is not excessive. For the smaller college the association sets up a standard of \$5 annually per student. It states that no college should be considered worthy of the name that expends less than \$2,000 a year in the purchase of books and periodicals, without reference to the number of students.

The support of the library in the University of Utah upon the basis of these standards compares very favorably with other institutions. This matter has been gone into at this length here to emphasize the importance of budgeting the library expenditures so that it is perfectly clear how much is spent for books, how much for personnel, how much for supplies, and for the other items of library expenditure.

Further, the American Library Association sets up as a standard for the college and university librarian that he or she should rank in educational and professional equipment, in personality, and salary with the professors who are heads of university departments.

#### TEACHER TRAINING IN THE UNIVERSITY

Teacher training has already been discussed from the standpoint of the relations between the university and the agricultural college, from the standpoint of a common service on the part of the two institutions to the great public-school system of the State, and in addition specific recommendations have been made with regard to the policy and program of the university teacher-training work in connection with the discussion of various subjects. This section is intended to deal with matters in connection with teacher training which relate specifically to the university. They concern especially questions of enrollment, scope of instruction, and organization. —

Of the 760 students registered in the school of education for 1922-23, one-half were in the four-year courses leading to the degree. The same proportion held for the 780 students registered in 1923-24, and no material change in these proportions has taken place since. This substantial enrollment indicates the importance of the university in the teacher-training program of the State. Only



one matter seems of such importance to the commission in connection with the enrollment in the university teacher-training work as to require detailed comment. The law of Utah provides as follows with reference to scholarships in the teacher-training division of the university:

Four hundred scholarships shall be maintained in the school of education: *Provided*, That the holders of such scholarships enrolled in the secondary training department of the school of education shall at no time exceed 200. The holders of these scholarships shall be exempt from payment of all matriculation fees. The appointments shall be made for a term of years corresponding to the length of the course or prescribed work the student elects to pursue, and shall terminate at the time such student is graduated, or receives a teacher's certificate or diploma.

The law provides that students "who have been appointed to normal scholarships may be examined before admission to the school, by or under the direction of the university faculty, and such students may be rejected if found to be unqualified." In spite of the provision, however, poverty apparently is the most important basis of award. This certainly seems a poor method of selecting future teachers. The commission recommends, therefore, that the scholarships awarded to students in undergraduate teacher-training courses be abolished or, if it is felt that some such incentive is necessary, that the number be reduced to one for each county. The method of selecting the scholars should be such as to insure the selection of students who, upon the basis of academic record and personal qualities without reference to ability to pay fees, promise to develop into teachers of special excellence.

Kindergarten work in Utah does not seem to have thrived as a separate and distinct curriculum in the teacher-training institutions nor as a separate division of the schools of the State. It does not seem advisable to the commission that the university attempt to promote kindergarten work as a definite line of employment. In 1913, 39 institutions in the United States gave kindergarten preparation, but only one listed its course as kindergarten primary; the remainder gave preparation for straight kindergarten work. In 1922 of the 83 institutions giving instruction for kindergartens, 60 maintained kindergarten-primary curricula. It seems, therefore, the general tendency to regard these early years as a unit and to provide for teacher training for this period by means of a single curriculum. In accordance with this tendency the commission recommends that the university develop a kindergarten-primary curriculum.

Mention has already been made of training for school principals, superintendents, and other supervisors. It is mentioned here again for purposes of emphasis. Many excellent courses have been de-



vised for this purpose, and with the development of graduate and research work in teacher training at the university considerable attention may well be given by the university to this kind of training. At no point will the contribution of the university to the school system of the State produce more important or more far-reaching results, since it lies in the power of trained supervisors to inspire and to direct the intellectual and teaching activities of the teachers who come under their control.

Although at another point in this report the commission recommends that the agricultural college devote special attention to the training of rural teachers, it is the opinion of the commission, in view of the amount of centralization in Utah, that training teachers for rural schools is not essentially different from training them to teach in any school. Such differences as exist are differences of application and adaptation to the familiar life of country children; aims and objectives are the same. It is one of the purposes of the schools to minimize rather than accentuate the differences between the city and the country; they must regard the life of the State as a whole if the regrettable social deficiencies of the country which have existed in the past are to be overcome. It is not so much teachers who are rural minded that are desired as teachers who understand rural conditions and limitations and know how to overcome them and to adapt instruction to these conditions wherever necessary.

In the past the university has offered, in addition to its regular course, special work for students who expect to teach in the rural schools, but it is understood that this work has been abandoned because of lack of demand. It is the belief of the survey commission that it should be restored. In a State so essentially rural as Utah the practice of Connecticut may well be followed and a course in rural life with special reference to their home State be required of all students whether they contemplate teaching in the city or in the country. Such a requirement might tend to break down some of the lack of understanding which will no doubt become more acute as the cities of Utah grow. However, if this is not thought advisable, it is believed that careful guidance of students and discussion of their probable future problems may induce many of them to take the special work with reference to rural conditions and life which has in the past not been popular. It is thoroughly understood that in many cases students regard the university and its teacher-training work as a means of escaping from the conditions of the farm and open country. Properly prepared courses in rural life might tend to break down some of these prejudices and inspire the young people with ideals of service in transforming conditions which everyone regards with regret. In any case, in view of the number of



teachers now being trained in Utah, it is obvious that a certain proportion of those graduating from the university must accept positions in the country. The university should train teachers for service in the country as well as for service in the city.

In connection with the question of teacher training for rural teachers it is advisable that an opportunity for practice teaching in rural situations be provided. Again it would do no harm if all prospective teachers were required to do some work in these schools, but it is certain that those who contemplate employment in the country as teachers should be required to do practice teaching in country schools. At present the fault in rural practice teaching lies primarily in the fact that adequate supervision from the university is not exercised. Supervision of practice teaching from the institution responsible for the training of practice teachers should be exercised in any case, but with reference to rural practice teaching the need is even more imperative.

The university has at present a training school which cares for practice teaching and permits a certain amount of experimentation in kindergarten, elementary, and junior high school work. This school does not provide accommodation so extensive as is desirable. All senior high school practice teaching is done in the city of Salt Lake and without adequate supervision from the university. Efforts should be made to make an arrangement with the city schools of Salt Lake whereby all practice teaching carried on in the city schools should be under the supervision of persons responsible directly to the university. Various devices have been adopted in other cities to maintain harmonious relations in such work and to make negligible the possibility of interference with the purposes of the city system. There is no reason why the demands of service to the State should not make possible an accommodation between the city system and the university which will work satisfactorily to all parties concerned.

It should be understood, however, that training of this type carried on in connection with the established schools either in the country or in the city fails to provide certain opportunities which are essential to successful graduate and research work. Necessarily the established system of schools must not be interfered with. The methods, courses, and administration prevailing in the schools which are the objects of practice teaching are matters of first consideration. It seems wise, therefore, that for purposes of experimentation and demonstration of new methods of instruction the university add to its present practice schools a senior high school. This school should, of course, be entirely under the control of the university and should, therefore, provide an opportunity for the



instruction of graduate students in the school of education and for the researches of the professorial staff. Unless such a school is provided, it will be impossible for the university to carry on the research and graduate work in education which other portions of this report regard as essential functions of its teacher-training service.

It is impossible for the commission to determine in advance of the action of the State what portions of its recommendations may be accepted. It can not therefore indicate in detail the personnel which will be required to carry out the teacher-training program. It seems inevitable, however, that it will be necessary to add major officers to the school of education. Graduate schools of education throughout the country report an unprecedented demand for men and women with training of the kind needed by the university. It may not be entirely easy for the university to secure persons qualified to develop the school of education along the lines indicated.

It seems wise in this connection to recommend also that some further administrative provision be made whereby selected members of the school of education may have an opportunity to participate more extensively in promoting the State's educational program. Such work should, of course, be planned and carried on in connection with the State department of education and in large part at the request of the State department.

Frequently the recommendation is made that the teacher-training institution should follow up teachers trained under its auspices, in order to determine in what respects instruction given by the school should be modified. Other methods of learning the results of instruction and of securing suggestions for improvement of instruction are, in practice, more feasible. Frequent conferences with State and local school officials and discussion of their problems will leave the burden of real supervision upon them, where it belongs, but may easily be made to give large results in checking and improving instruction given to students in training.

#### LAW

The investigation of the law school by the survey commission indicates that the standards are high, the lines of development already undertaken intelligent and commendable, and that the needs of the law school have been carefully considered with reference to the situation in Utah and in other States. The three-year law course based upon two years of prelegal training will compare very favorably with other law schools. The needs of a few years ago with reference to the library, to the faculty, and to the adjustment of



schedules seem to have been cared for in large part. Upon only one point does the commission wish to make a suggestion. It is thought that university students who are taking the prelegal course in the university should not be considered as registered in the law school. In other words, prelegal training should be obtained in the school of arts and sciences.

The number of students taking the law course and graduating from it does not seem to be excessive for a State the size of Utah. Certainly with business and industrial interests so extensive, with municipal, county, and State governmental functions making their usual demands upon the legal profession, Utah would seem to be able to care for as many law students as the university can turn out for some years.

#### SCHOOL OF MEDICINE

The school of medicine has been thoroughly reorganized since 1923. The commission wishes especially to take this opportunity to commend the spirit, method, and direction in which this organization has been carried on. The equipment and physical arrangement of the medical school were somewhat disorganized when the school was visited by the commission, but this was due to reconstruction and reorganization and not to any fault of the management.

While the cost of medical instruction appears high, there is no question that the need in Utah and the intermountain region for a good medical school justifies the expenditure. The part of the burden borne by the students in Utah as shown by the following table compares very favorably with that exacted by other two-year medical schools.

TABLE 21.—Fees in medical schools 1924-25

Schools	First year	Second year
University of Alabama School of Medicine.....	\$260	\$260
University of Mississippi School of Medicine.....	163	163
University of Missouri School of Medicine.....	125	113
University of North Carolina School of Medicine.....	195	195
University of North Dakota School of Medicine.....	60	60
University of South Dakota School of Medicine.....	100	100
University of Utah School of Medicine.....	150	150
West Virginia University School of Medicine.....	95	95

<sup>1</sup> Additional nonresident fee \$50.

<sup>2</sup> Additional nonresident fee \$10.

<sup>3</sup> Additional nonresident fee \$50.

<sup>4</sup> Additional nonresident fee \$150.

At the present time the school is limited to 25 students in each class. This seems during the period of reorganization and development a wise provision.

As in the school of law, it is suggested that premedical students register in the school of arts and sciences instead of in the school of



medicine. At the present time students who desire to complete the entire college course before entering the course in the school of medicine are compelled to register in the school of arts and sciences. While the school of medicine should take an interest in and hold itself ready to advise and consult with college students pursuing pre-medical courses, it should in no sense be responsible administratively for them or their work. It should be one of the functions of the school of arts and sciences to carry on premedical work.

The two-year courses in medicine now given at Utah require that the student go elsewhere to complete his work. Although the commission agrees with the statement of the dean of the medical school that "two-year medical schools will probably not survive many more years," it recommends that the present program be continued until the unmistakable occasion for expansion and extension arrives. Probably the date upon which it will be wise to undertake this expansion can be determined easily by the fact that the money required will be made available through private benevolence and willing public appropriation. Because the West has comparatively few medical schools and because so many medical students leave Utah for study elsewhere, national agencies interested in medical education have for some time strongly urged the State to look forward to a program of development. The commission believes that the administration is developing the present program as a firm foundation upon which such development may be made when the time comes.

Three additional lines of expansion for the medical school have been suggested and urged strongly upon many occasions; that the school undertake the training of public-health nurses, establish a dental school, and a school of pharmacy. Each of these will be discussed in turn.

A two-year course in school nursing for high-school graduates is offered by the university, but has attracted few students. At present and for some time to come graduate nurses from hospital training schools, with some additional training in public health or public school work, will be more in demand, and it would be advisable to arrange a special course of one semester (perhaps best given in summer) in school nursing for graduate nurses. This course would include educational psychology, general educational methods, school hygiene, health examination, health teaching, and physical education. No new features would need to be added to the curriculum to furnish this training.

A course in public health nursing to which graduate nurses would be eligible may in the future be developed in the university. Such a course would extend over one year and should include the subjects of preventive medicine, social work, methods of health teaching, nutrition, public-health nursing, and school nursing. This should be



a very practical course, at least half the time being devoted to field work. The public health nurse with training in school work is better fitted for the latter than one without the more general training.

Hospital facilities under the control of the university are not at present available which can be used for the complete training of public-health nurses. It is probably not practicable to make cooperative arrangements for this purpose with local private hospitals. However, cooperative arrangements may be effected with training schools of other colleges. If this were done, graduates of local nurses' training schools might be given special training by the medical school and complete their work elsewhere, as is the case with medical students. The commission does not regard this matter as so urgent that extraordinary effort should be made to put this plan into effect. It realizes that the question is clearly before the minds of the administration of the university and of the medical school and is confident that as the need becomes pressing the problem will be met wisely.

The second line of development, the creation of a school of dentistry, also seems to the commission a possibility for the future. No course in dentistry is now given and the commission does not wish to recommend the immediate creation of such a course. As a preliminary, however, it is suggested that a pre-dental year may be offered. The development of a dental school as a specialty in the medical course is in line with modern thought with reference to dental education. A report on this subject is now in process of preparation and will be issued by the Carnegie Foundation for the Advancement of Teaching very soon. The administration of the medical school should be supported when the time comes in keeping the dental work on the very highest professional plane. This may mean somewhat slower development and more expensive training, but the results will be well worth the investment of time and money, and should go a long way to keep Utah free from quack dental schools and dentists.

A department of pharmacy is already in existence in the university in connection with the medical school. However, of the list of 33 courses which are offered in the catalogue, 12, or 66 per cent, are not given. In view of the decreasing importance of drug compounding by local druggists there is perhaps constantly decreasing demand for the highly trained pharmacist. However, the question of whether the work in pharmacy at the university should be continued or expanded must be answered in terms of the new registration law for pharmacists in Utah.

The pertinent portions of this law provide that every applicant for a license as a registered pharmacist shall have had at least four years' practical experience and after July 1, 1927, be a gradu-



ate of a school of pharmacy registered by the department of registration. The law requires further that a two-year course in a recognized school of pharmacy may be credited as two years' experience, while a four-year course may be credited as three years' experience. The commission believes that the faculty and facilities at present available for instruction in pharmacy are entirely inadequate to provide satisfactory training under the meaning of the law. It recommends, therefore, that the facilities for instruction in pharmacy be strengthened so as to meet fully the standards of the law for registration of pharmacists. It is not the opinion that graduate work in this line should be attempted, since the demand in Utah and in the neighboring States for such service is practically nonexistent.

#### HEALTH

The University of Utah has a fine tradition in health work for its students and as a center from which interest and information in personal and public health have radiated.

All of the departments having to do with safeguarding and promoting the health of the students, and with the training of teachers and leaders in the field of health work (student health service, hygiene, physical education, and intercollegiate athletics), have been recently merged wisely into a department of physical welfare, with an official of excellent training and experience at its head.

Fundamental to the health of the college student is his physical examination. The university now requires this of all students on entrance, and they may be asked to return for subsequent examination if in the opinion of the examiners it seems especially needful. A nurse and the director of physical education for women assist in the examination of women. The college physician and nurse can be consulted by the students at any time throughout their university career, but we believe that all students should be examined annually.

The initial examination is a thorough one if we can judge by the record blanks and the training of the examiners. We would suggest, however, that a urinalysis be made for each pupil. A record of this important test does not appear on the examination blanks.

The mental health of the student should be given due consideration, for it is possible to have an unsound mind in what, so far as our present tests go, is a sound body. The student's mental health is as much the business of the various teachers as of the physician to whom they should report all cases of apparent deviation from the normal.



From the results of the examination the student is classified as to his health, his posture, and fitness for school activities. He is advised in regard to his habits and urged to have all physical defects corrected.

The course in physical education (required only of able freshmen) consists of gymnastics, swimming, and games. Out-of-doors games and intramural sports are developed to a considerable extent. It would seem that young people of college age would spontaneously seek daily the two hours of suitable out-of-door activity which may be considered in most instances a minimum for health; nevertheless this is not the custom of the majority of students and the school is not doing more than its duty in trying to stimulate such habits through at least three years of college life by requiring participation at least three times a week in pleasureable activities suited to the physical condition of the individual and such as are suitable for continuance after leaving the institution. The physical training efforts of any college or university should, however, aim to impress the student that the time devoted to this subject in the curriculum is to be considered chiefly instructional, and that physical activities are neither to be neglected between prescribed periods nor abandoned after college years if the student expects to really profit by the efforts made for his welfare.

Subjects pertaining to the vital problems of personal and public health are in most colleges still struggling to obtain a foothold in the curriculum. They have at least gained this in the university, though not more, for the course required of all graduates consists of only one exercise a week for one quarter. Very much depends on the way this subject is presented, but we would suggest that it deserves the allotment of three periods a week for one quarter, the exercises to consist of lectures and conferences. The principles of mental hygiene, sex hygiene, and of racial improvement should be included in the subjects taught, and also those of home hygiene and public health.

#### MUSIC

In view of the great interest in music in Utah discovered in every small community and in every gathering with which the survey commission came into contact, it would seem that the department of music in the university might be considerably extended and developed. Love of both vocal and instrumental music is so keen that cultural and artistic development of the State may well center about the growth of musical life. In this development the university should take the leadership.



## GRADUATE WORK

It is the opinion of the survey commission that graduate work for the master's degree should be developed in practically all major divisions of the university. It recommends especially that graduate work be developed in the schools of arts and sciences, education, mining and metallurgy, and in archaeology. Perhaps no greater opportunity for graduate work exists in the State than that in connection with mining and metallurgy. The chairman of the board of regents in the biennial report for 1922-24 recommends "that special emphasis be placed upon enlarging the courses in the school of mines and engineering, with special reference to building up a strong graduate school." The survey commission is entirely in accord with this recommendation. The United States Bureau of Mines spends \$25,000 per year in research in the State, and the State and university are cooperating by contributing \$15,000 to the work besides providing buildings and their maintenance. Library needs are provided for, since the regents some years ago voted that the income from the \$50,000 bequest to the school of mines be devoted to library purposes. The mining industry is extremely important in the State. The school is favorably located to take advantage of cooperative arrangements with practical mining pursuits. It seems logical and easily practicable to develop at the university one of the most important graduate schools of mining in the country.

In order to develop strong graduate work in the institution careful consideration should be given to the teaching load of the professors in the various departments. Table 18 indicates, in terms of student clock hours, the weight of the load borne by many professors; it does not indicate how serious this condition is in its effect upon graduate and research work.

Although laboratory assistants are employed with the idea of their pursuing graduate work, this has frequently not proved a practical arrangement. The older members of the scientific faculty have been so burdened with undergraduate work that they cannot give to graduate students the care and direction which they should receive. Much the same condition exists in the literary departments of the institution. Reduction of the undergraduate-teaching load for men who wish to carry on research or upon whom is placed the burden of directing graduate work is essential to the satisfactory development of graduate work in the university. In the case of men who have a taste for research work committee assignments and other administrative burdens should also be reduced to the minimum. Facilities and equipment, as well as increased time, should be provided by the university for the benefit of the men who by their work may add so much to the reputation and material welfare of the State.



## THE AGRICULTURAL COLLEGE

An examination of the catalogue of the Agricultural College of Utah gives the impression of an institution of considerable size offering a rich variety of work. Further investigation indicates, however, some need for modification as respects listing of courses and organization of the institution. The following table shows the courses listed in the catalogue by each of the departments during 1924-25, the number of courses actually given by each of the departments, and the per cent listed but not given:

TABLE 22.—*Courses listed in the catalogue, 1924-25*

Courses	Number offered	Number given	Per cent not given
Home economics	36	29	19.4
Commerce	120	124	
Basic arts and science	367	296	19.3
Mechanic arts	95	67	29.4
Agricultural engineering	52	27	48.0
Agriculture	140	110	21.4
Total	810	653	19.39

It seems from this table that the school of agricultural engineering lists a larger proportion of courses that are not given than any other school. The number listed and not given seems somewhat large also in the case of the other departments, except that of commerce, which gave more courses than were actually listed. These figures indicate that the school of agricultural engineering was comparatively the weakest of the schools. Figures showing the number of student clock hours given in each of the departments also would seem to point in the same direction:

	Student clock hours
Agriculture	1,420
Commerce and business	3,741
Education	1,244
Home economics	710
Agricultural engineering	182

Classes in agricultural engineering are uniformly small. In only one instance were there as many as 12 students enrolled in a class. Probably this indicates that there is not a great demand for any type of engineering at the agricultural college. The classes in irrigation engineering had, however, very naturally the largest enrollment of the engineering subjects.

The catalogue is somewhat padded by listing the same course under two departments as though two different courses were offered.

For instance, under physics, 150, 151, and 152, the catalogue of 1925-26 lists applied mechanics for engineers, fall, winter, and spring quarters, 5 credits each quarter, daily except Saturday, at 8, and on page 221, under the school of agricultural engineering, applied mechanics and design, it lists 101, 102, theoretical mechanics, fall and winter quarters, 5 credits each quarter, lecture daily except Saturday, at 8. The department of bacteriology and physiological chemistry lists on page 118 a course in pathogenic bacteriology. The rural public health department lists the same course on page 208. Multiplication of listings within single departments also appears unjustified in certain cases; for instance, in the department of agricultural economics, page 28, course 103 and course 104 are taught by the same man, at the same place, at the same time, yet one is known as farm cost accounting and the other as types of farming. It is difficult to see how two courses actually accomplishing what these names seem to imply could be handled in this way. No attempt has been made to make the list of such duplication of listings exhaustive nor does it seem necessary to do so. These cases are sufficient to make it evident that there is need for revision of the catalogue to eliminate misleading repetitions of this kind.

The catalogue is still further expanded by reason of the unnecessary multiplication of schools and major divisions. The commission recommends that the school of commerce and business administration as a separate major division of the institution be abolished and the work offered be divided between basic arts and sciences and the school of agriculture. Certainly, work now offered in the school of commerce in history, economics, political science, and sociology might well be placed under the school of basic arts and sciences. Marketing, accounting, and business administration as applied to agriculture should be placed under the school of agriculture. The commission recommends further in this connection that the school of agricultural engineering and the school of mechanic arts, at present under one dean, be combined into one school, the school of agricultural engineering and mechanic arts. The commission also recommends in this connection that the experiment station and the agricultural engineering experiment station be merged into one division.

The fact that there are 44 departments of instruction in the Utah Agricultural College may be accounted for in part by practical considerations which made it desirable to make members of the staff heads of departments in order to retain them, since the salary schedules applying below that rank may not be sufficiently high to attract and keep good men. The following table of salaries for 1923-24 gives clear ground for this conclusion, and the survey com-



mission was assured both by administrators and individual instructors that this was the case:

TABLE 23.—*Salaries, 1923-24*

	Number	Maximum	Minimum	Average
Dean.....	7	\$4,300	\$3,000	\$3,714
Professor.....	21	3,500	2,600	3,032
Associate professor.....	9	3,000	2,200	2,477
Assistant professor.....	20	2,600	2,000	2,312
Instructor.....	13	2,300	750	1,730

However, there is no question that the number of departments has been multiplied excessively and that the amount of work offered and the personnel attached to some of the departments are insufficient to justify designation as a department. The commission recommends, therefore, that the number of departments be reduced materially. It would seem that a general department of economics should be retained in the school of basic arts and sciences and that the various courses in applied economics should be placed under the department of agricultural economics. This would eliminate the departments of accounting and business practice, of business administration, marketing, and stenography and typewriting. In the same way all the departments dealing with health and physical education might well be combined into a single department. This would combine the departments of physiology and hygiene, of physical education, and military science and tactics.

Undue expansion of the catalogue and a somewhat distorted view of the institution presented thereby is due not only to multiplicity of major divisions and departments of instruction but also to what seems to be an unnecessary number of courses. The fact that the courses are offered by the catalogue and not given, as indicated by the table above, is itself evidence that the impression of too many courses is justified. A comparison of the various departments with similar departments in other great land-grant colleges shows also the justice of this impression. The agricultural college at Cornell University, for instance, offers 3 undergraduate courses in agronomy and 2 additional courses to upper classmen, whereas the Agricultural College of Utah offers 14. In dairy husbandry Cornell offers 8 undergraduate courses and Utah offers 17. Careful reorganizations of the offerings without reference to the advertising or publicity use of the catalogue would create an impression of greater solidity and would make a slight saving on the printing bill of the college.

The principles presented by this report in its discussion of the university administration, especially those concerning the process of

budget making and the appointment of new members of the faculty apply also to the agricultural college. The president should seek and obtain the advice and assistance of the deans and department heads in both these important matters.

#### USE OF PLANT

Examination of the plant of the agricultural college shows that in practically every respect the space is ample. There are 120,920 square feet of classroom and laboratory space for an enrollment of 860 students. In other words, there are 140.6 square feet of classroom and laboratory space per student. These general figures are not especially significant. Detailed examination of the use to which the individual rooms are put is more enlightening. The following figures show the use of classrooms and laboratories:

Number of classrooms and laboratories used: 0-5 hours, 17; 6-10 hours, 15; 11-15 hours, 13; 16-20 hours, 10; 21-25 hours, 10; 26-30 hours, 4; 31 or more hours, 4. Total number of classrooms, 73; total number of hours used per week, 1,160; average number of hours used per week, 15.8; average per cent use of classrooms, 52.6.

The foregoing statistics show that a total of 73 classrooms are used 1,160 hours per week. In other words, the average number of hours of use is only 15.8. Upon the basis of 30 hours for normal use of the classroom for a week the classrooms and laboratories of the agricultural college are used only 52.6 per cent time capacity. See in this connection, however, discussion of the same point under the University of Utah. Although the average is somewhat low, four rooms are used in excess of 30 hours. Three of these are in the mechanic arts building and one in the agricultural engineering building. The use of these rooms in excess of 30 hours, however, does not indicate that they are used to capacity, since the classes in agricultural engineering and mechanic arts are very small and the rooms are adequate to accommodate a larger number of students than is actually enrolled. The fact that 49 of the classrooms and laboratories are used less than 15 hours per week shows no great general need for additional space. It is doubtful also whether additional buildings for specific purposes should be provided in the near future.

The one case in which the administration indicates a desire for an additional building is that of the library. At the present time the library is housed in five buildings. The agricultural building has 1 library room containing 52 square feet, Widtsoe Hall 1 room containing 156 square feet, the livestock building 1 room containing 368 square feet, the main building 2 rooms containing altogether 6,548 square feet, and the plant industry building 1 room contain-



ing 312 square feet, giving a total library space of 8,336 square feet. If it is desired to provide better accommodations for the library; it would seem that reduction of the number of extremely small classes and rearrangement of the scheduling of the space might provide the desired accommodation. The need for additional library space at the agricultural college is by no means as great as at the university.

The gymnasium of the agricultural college is a more modern structure than that of the university, but the expansion of health work from the gymnastic phase, of the time in which it was built, has rendered it ill appointed and inadequate in many ways. Improvements could be made with advantage in the physical structure, but separate housing of the military services would afford even greater benefits. Facilities for the outdoor recreational exercise of the student body might well be increased.

The following table shows the number of classes in each of the departments of the agricultural college, with enrollments indicated, fall of 1925-26:

TABLE 24.—Number of classes and enrollments

Number in class	Agriculture	Agricultural engineering	Basic arts and science	Home economics	Commerce and business administration
1-5.....	7	4	5		4
6-10.....	10	6	28	5	8
11-20.....	4	3	22	10	9
21-30.....	3		22	1	3
31-40.....		1	11		1
41-50.....	1		13		5
51-60.....			4		
61-70.....					
Over 70.....			2		4

Ten per cent of the total number of classes had an enrollment of 5 or less, 29 per cent had an enrollment of from 6 to 10. On the other hand, there were 10 classes with an enrollment of over 50. Agriculture is responsible for 7 classes with fewer than 5 students; agricultural engineering is responsible for 4; basic arts and sciences for 5; commerce and business administration for 4.

In preparing the above figures, classes under 5 in machine work, woodwork, forging, and art consisting of shop or studio work are not listed because the instructor handles six or seven different kinds of work in the room at one time. The schools responsible for the large classes are two—basic arts and sciences and commerce and business administration. One of these classes consists of 170 students in elementary mathematics. This would seem to be entirely too large a class for such a subject. It may also be questioned whether 50 in

zoology and 57 in chemistry and 78 in physiology are not also excessively large. Classes of such size must mean that work is largely lecture work, and hence the instruction not of the highest grade for these laboratory subjects.

TABLE 25.—*Classes with more than 50 students, fall 1925-26*

Basic arts and science:	
Chemistry 1, section 1.....	57
Education 4, section 1.....	54
English 10, section 1.....	60
English 50.....	59
Mathematics 20.....	170
Music 21.....	52
Physiology 1.....	78
Zoology 111.....	50
Commerce and business administration:	
Accounting 1.....	86
Economics 1, section 1.....	90
Economics 1, section 2.....	77
Economics 20.....	52
Sociology 55.....	161

A truer measure than size of classes of the burden placed upon instructors is the number of student-clock hours which instructors are called upon to teach. The following table shows the number of instructors with various amounts of student clock-hour burden:

TABLE 26.—*Instructors and student clock hours*

Number of instructors with	Agri- cultural college	Experi- ment station
0-100 student clock hours.....	2	0
101-200 student clock hours.....	5	2
201-300 student clock hours.....	10	1
301-400 student clock hours.....	4	6
401-500 student clock hours.....	4	3
501-600 student clock hours.....	1	0
601-700 student clock hours.....	2	2
701-800 student clock hours.....	2	0
801-900 student clock hours.....	0	1
900 or more student clock hours.....	5	0

Examination of details indicates several points that seem to call for further inquiry and adjustment. Although about 300 student clock hours are considered a fair teaching load, several of the instructors who are giving part of their time to the experiment station are carrying teaching loads in the college in excess of this amount. For instance, one chemistry professor, giving 50 per cent of his time to the college and 50 per cent to research, has a teaching load of 482 student clock hours. The former dean of the school of agriculture, giving 75 per cent of his time to the college and 25 per cent to



research, has a teaching load of 660 student clock hours. Another chemistry professor, giving only one-third of his time to the college, has a teaching load of 675 student clock hours. The professor of irrigation and drainage, giving 50 per cent of his time only to the college and the remaining time to research, has a teaching load of 850 student clock hours. The professor of veterinary science, giving half time to the college, has a teaching load of 468; and the professor of botany, giving only one-third of his time to college and two-thirds to research, has a teaching load of 462 student clock hours. Another professor of chemistry, giving 75 per cent of his time to the college and 25 per cent to research, has a load of 1,004 student clock hours.

This would indicate that teaching loads are by no means lightened in order to permit instructors to carry on research. In fact, the burden of their teaching loads seems to be somewhat heavier than that of professors of other subjects who do not devote any of their time to the experiment station, although the list reveals one such professor teaching chemistry with a load of 1,413 student clock hours, another in education with 606, another in English with a load of 588, still another in education and psychology teaches 778, and one in zoology 691. These figures indicate that a readjustment of the load of the instructing staff is highly desirable.

Further consideration of these teaching loads raises the question which is always one of concern in the land-grant college as to the relationship of the experiment station staff, the teaching staff, and the extension staff. In the Utah Agricultural College the director of extension is also director of the experiment station and in addition is head of a department. Of the experiment station staff 3 spend their entire time in research, 25 in research and teaching, and 2 in research, teaching, and extension. Of the 12 members on the extension staff 8 do not teach or experiment, 2 teach and experiment, and 2 teach and do not experiment. This arrangement goes upon the theory that the teacher should spend some time in research and the research worker some time in teaching. It is assumed that this will correlate teaching with the latest developments in the fields of research. This may be true so far as the individual teacher or experimenter is concerned; it is not necessarily true with that portion of the teaching staff which does not engage in research work. In the Utah Agricultural College, with 25 members of the experiment station teaching, an important percentage of the teaching staff is brought into contact with the research work.

However, the figures given above show that the coordination of research and extension work is by no means so close. Only a small proportion of the extension staff is connected with the experiment station, and it would seem that it might be profitable to devise some



means whereby the experiment station force may be made more familiar and be brought into closer contact with the problems of the extension worker. The same is true of the extension worker and the problems of teaching. Certainly the residence teacher should have in his experience frequently some element of extension work. His college work should thereby be vitalized and kept in close relation and coordination with what is actually being done on the farms of the State. The survey commission suggests, therefore, that frequent conferences be held in which all elements of the agricultural college staff participate. Probably informative conferences covering the whole field or large portions of the field of experimental work would be of more value to extension workers and the academic faculty than actual pursuit on their own part of limited and detailed investigations. As a matter of fact, there is no, or very low, correlation between ability to carry on investigation and ability to teach. Probably there is even lower correlation between ability to carry on research and ability to do extension work in the field. On the other hand, it is probable that the successful extension worker will be a good teacher or a good teacher a successful extension worker. The theory, therefore, upon which the coordination of the experiment station, college, and extension work is maintained in the Utah Agricultural College does not seem to be thoroughly sound.

#### THE WORK OF THE AGRICULTURAL COLLEGE

The commission has suggestions to make with reference to five subjects of importance in the work of the Agricultural College of Utah—agriculture, short courses, health activities, teacher training, and graduate work.

The enrollment of the Agricultural College of Utah suffered along with that of similar institutions all over the country as a result of the economic depression in agriculture which followed the war. The people of Utah are of course thoroughly familiar with the hardships of agriculture during the past years; they may not realize fully, however, the difficulties which resulted for their agricultural college and the degree of success which it attained in its attempt to continue and to better its service to the agricultural interests of the State during this difficult period. The comparisons in the following table with other land-grant colleges not a part of the State university show the Agricultural College of Utah in no unfavorable light. It will repay study.



TABLE 27.—Relation of agricultural enrollment to population statistics

States	1	2	3	4	5	6	7	8	9	10	Rank	Per cent of agricultural to total enrollment	Rank
Alabama	Alabama Polytechnic Institute	1,444	2,445,551	1,922	79	14	130	64	20	11.0	20	11.0	20
Colorado	Colorado Agricultural College	1,004,803	1,004,803	92	92	10	254	26	4	28.6	4	28.6	6
Connecticut	Connecticut Agricultural College	1,503,809	1,503,809	408	27	21	298	17	10	65.6	10	65.6	2
Indiana	Purdue University	3,036,775	3,036,775	2,890	95	9	428	14	12	14.8	12	14.8	14
Iowa	State College of Agriculture and Mechanic Arts	2,457,196	2,457,196	3,619	146	5	745	30	3	20.6	3	20.6	9
Kansas	State Agricultural College	1,805,555	1,805,555	2,849	158	4	415	23	5	14.6	5	14.6	15
Massachusetts	Agricultural College	4,077,599	4,077,599	447	11	22	417	11+	15	100.0	15	100.0	1
Michigan	College of Agriculture and Applied Science	4,068,223	4,068,223	1,616	40	19	417	10	17	25.8	17	25.8	7
Mississippi	Agricultural and Mechanical College	1,790,618	1,790,618	1,204	67	12	393	22+	4	32.6	4	32.6	5
Montana	do	1,623,063	1,623,063	728	117	6	136	22-	7	18.7	7	18.7	11
New Mexico	do	375,959	375,959	180	48	16	37	10+	16	20.5	16	20.5	10
North Carolina	Agricultural and Engineering College	2,722,669	2,722,669	889	32	20	162	6	21	18.2	21	18.2	12
North Dakota	Agricultural and Mechanical College	679,262	679,262	779	116	7	85	13	14	11.0	14	11.0	19
Oklahoma	do	2,200,397	2,200,397	1,454	66	13	193	9	18	13.3	18	13.3	17
Oregon	Agricultural College	835,665	835,665	3,147	378	1	421	50	1	13.3	1	13.3	18
Pennsylvania	State College	9,298,986	9,298,986	3,376	36	19	480	5	22	1.2	22	1.2	16
Rhode Island	do	633,036	633,036	449	71	11	38	6	19	8.5	19	8.5	23
South Carolina	Clemson Agricultural College	1,761,746	1,761,746	932	53	15	316	18	9	33.9	9	33.9	3
South Dakota	Agricultural and Mechanical College	640,956	640,956	751	114	8	123	19	8	16.4	8	16.4	13
Texas	do	5,018,602	5,018,602	2,052	41	1	685	13+	13	33.4	13	33.4	4
Texas	do	484,045	484,045	769	160	3	172	36	2	22.4	2	22.4	8
Utah	Agricultural College	2,423,912	2,423,912	1,029	48	17	111	4+	23	10.8	23	10.8	21
Virginia	Institute	1,165,166	1,165,166	2,241	161	2	222	15	11	9.5	11	9.5	22
Washington	State College	1,165,166	1,165,166	2,241	161	2	222	15	11	9.5	11	9.5	22

It is interesting and perhaps important in connection with a consideration of the development of the agricultural college to note that when the separated agricultural institutions of the United States are rated in accordance with the number of students per 100,000 of population Utah ranks third in the list of 23 institutions considered. Further, only one other State had a larger number of students per 100,000 of population enrolled in agriculture in 1924. In Utah 22.4 per cent of the enrollment in the agricultural college was enrollment in agriculture; only 7 States of the 23 ranked higher than Utah in this respect. If to this list of "separated" agricultural colleges above is added the list of 25 institutions in which the agricultural college is a part of the State university, Utah still ranks high in the number of students in agriculture per 100,000 population. In the new list only two additional States, Maine and Nevada, have more agricultural students per 100,000 of population.

In short, during a period of great agricultural depression the Agricultural College of Utah served the agricultural interests of the State to an extent reached by few States, even though several which it outranks in the respects covered by the tabulation above have attained a degree of development and of wealth much greater than that of Utah.

The complaint, heard frequently in Utah, that the agricultural college is not giving enough attention to agriculture is due, therefore, to some cause other than failure to provide agricultural education and to enroll agricultural students. Discussion above and some of the suggestions of the survey commission indicate that in the opinion of the commission these causes include overemphasis by the agricultural college in its publicity material upon other aspects of education, such as business and finance. Although in the opinion of the commission the college offers in general an adequate agricultural course, it suggests that perhaps greater publicity emphasis might be placed upon this aspect of its work and perhaps also more emphasis might be placed in the college upon the range, upon sheep growing, upon methods of agricultural distribution, and upon the development of new products which may be added to the agricultural resources of the State.

The showing made by Utah with reference to enrollment in agricultural subjects is such that the question naturally arises whether the college may reasonably expect any great growth in this field in the immediate future even under normal agricultural conditions unless new developments in agriculture come to Utah. Since the future agricultural development of Utah is largely conditioned by the management of a water supply which can be measured with considerable accuracy and which is strictly limited by nature, a careful



survey of the probable agricultural development during the next 20 years should be possible and would afford the basis for a very useful estimate of the future development of the college along present agricultural lines. Such a survey is, of course, outside the field of the present survey commission, but it is within its province to point out phases of development for the college which are possible and advisable under conditions as they exist. These aspects of educational adjustment to meet economic and social conditions with more perfect service will be discussed in the light of facts concerning the employments now engaged in by graduates of the agricultural college.

The following table indicates so far as they are known the present employments of graduates of the agricultural college during the past five years and shows the schools of the college in which they received their training:

TABLE 28.—*Graduates of the Utah Agricultural College for the years 1921 to 1925 divided into occupations*

Graduate	Agriculture	Agricultural engineering	Mechanical arts	Commerce	General science	Home economics	Total
Accountants.....				3			3
Agricultural experts.....	8						8
Attorneys.....				1	1		2
Business men.....	1			1	1		3
Business employees.....	1			3			4
Athletic coaches.....	6	3	1	6	5		21
Contractors.....			1				1
Engineers.....		7	1		3		11
Highway engineers.....		17					17
Irrigation engineers.....		6					6
In extension service.....	3						3
Executive:							
School.....	3			1	3		7
Business.....				3	1		4
Agriculture.....	5						5
Farmers.....	3			1	1		5
Housewives.....					13	20	42
Private secretaries.....				1	1		4
Physicians.....					2		2
Stockmen.....	3			2	1		6
Salesmen and agents.....					1		1
Students.....	12			7	20	2	41
Graduate teachers.....	86	6	6	23	63	55	239
United States (Government employees).....	4	5			1		10
Journalists.....	1						1
School employees.....				2			2
Total.....	135	44	9	56	118	86	448

It will be noted that 34 graduates out of a total of 44 trained in the school of agricultural engineering are following lines directly related to their training, engineering, highway, and irrigation engineering. Twenty-two out of a total of 135 trained in the school of agriculture are engaged in vocations directly related to agriculture, 8 as agricultural experts, 3 in the extension service, 5 as agricultural executives, 5 as farmers, and 6 as stockmen. Almost as many grad-

uates of the college as follow these agricultural pursuits are serving as athletic coaches, 22 agriculturists as compared to 21 coaches. However, 5 graduates trained by other schools of the college are engaged in some form of agricultural work, making a total of 27 thus employed. No doubt many of those employed as teachers are extending the benefits of their agricultural training through service as teachers of agriculture.

These figures are, of course, not intended to support the argument that since 100 per cent of the four-year students are not staying upon the farm the agricultural college is failing. The fact is not peculiar to Utah. Similar conditions exist in all agricultural colleges. Economic conditions, especially the fact that farming and its related employments when pursued as a personally owned business requires a large investment of capital, more than the type of instruction offered by the agricultural colleges may account for the fact that so few graduates become farmers. In the past also the teaching of agriculture, scientific employments, and graduate study have drawn so largely upon agricultural college students that the figures given fail to represent the real contribution of the agricultural colleges to agricultural progress. Perhaps as the demands made by these lines of activity become less urgent a larger proportion of agricultural college graduates will turn to work which is more obviously related to agricultural production and distribution. In the meantime direct avenues of assistance are numerous.

The experience of other institutions shows that whereas only a very small proportion of the graduates of agricultural colleges are after some years actually engaged in farm work, a very high percentage of those who come to the institution for short courses in agriculture continue to reside and work upon the farm. This fact indicates an additional means by which the agricultural college may maintain that close and intimate connection with the actual work of the farm and the resident farmer which it is felt is so essential. It is true that extension work and home-demonstration work and summer schools may and do serve to establish such direct connection with the farmer that he quite generally feels a possessive interest in the agricultural college of his State. However, in many instances satisfaction in and approval of extension work has led the country dweller to think that the money expended for extension work should be increased, even though this has to be done at the expense of resident and experimental work.

A short period of residence in the agricultural college will change this attitude on the part of almost everyone who participates in such an experience, and will give him a personal interest in the mother institution. For these reasons the commission rec-



ommends very strongly that the agricultural college emphasize its short-course work. At the present time it conducts vocational courses for the preparation of stenographers and typists. It should conduct many vocational short courses in agriculture and mechanic arts. At the same time it should consider very seriously the matter of offering to the rural citizenry of the State an opportunity to come to the agricultural college for some cultural as well as practical work. The commission does not share in the belief that cultural results may not be obtained from teaching practical subjects, but it does believe that certain of the liberal arts, especially the social sciences, should be studied by those who are pursuing practical courses with definite objectives in order that they may understand somewhat more fully the world in which they live. For these reasons the commission suggests that short courses be offered for home makers and for farmers which include some of the liberal arts subjects as well as agricultural subjects and home economics.

#### HEALTH ACTIVITIES

Much that has been said in regard to the physical welfare conditions and activities of the university could be repeated with reference to the agricultural college. The need for an infirmary and the importance of adequate dormitories and dining halls apply to both institutions. Mention has already been made also of the desirability of coordinating the various departments dealing with student health and the teaching of health subjects.

The work conducted for the physical welfare of the student is along the same lines as have been described for the university. The physical examinations are given annually, but if it is fair to judge by the record form used these examinations are anything but thorough. There is no nurse to serve as an assistant to the examiner or to make consultation with the physician more available for the women. The dean of women is a graduate nurse, which, however, hardly makes up for this need.

That pupils are carefully classified for physical activities is doubtful, judging from the nature of the records kept.

In physical education the college does better as to time spent than the university, since it is required of all students for 10 quarters three hours a week in the freshman and twice a week in the later years. This is made more practicable in the college, since military training is required of all able freshmen and sophomores and is substituted for physical education. This requirement should be extended to three hours per week in the three years.

The teaching of hygiene is given more attention than in the university, the freshmen being required to attend lectures on "personal



and general hygiene" once a week for three quarters. This work would probably be more effective if condensed into three hours a week during the first quarter of the freshman year.

Military training is a prominent feature in the college, being required of those physically able for it in the first two years. This department should be housed in a building especially adapted for its purposes; the gymnasium is not suitable for serving both departments.

The development of intramural sports for all students is proceeding well with the personnel available for direction of these activities.

The always troublesome problem of the supervision of intercollegiate sports seems to be handled as well by both the agricultural college and the university as it is anywhere. These entertainments belong to the no-man's realm of extra-curricular activities. They have a place in the emotional and social life of the institution, but they enlist the health and physique of the youth rather than develop it. The best the department of physical welfare can do is to forbid those students who will risk serious physical damage from taking part in these competitive performances and to attend to the minor injuries of those who participate. This policy is being followed in both institutions by the departments having to do with student health.

#### TEACHER TRAINING

Discussion and recommendations in previous portions of this report make it evident that the opinion of the survey commission favors maintenance and extension of the teacher-training work of the agricultural college. This opinion is based upon the obvious fact that in certain respects the college has facilities and contacts which specially fit it for preparing certain types of teachers. The work peculiar to the resident college, the experiment station, and extension work in agriculture and home economics lead logically to training of vocational teachers, teachers of general science and of the biological and physical sciences, of agriculture, of home economics, and of manual arts. It seems unwise to handicap the State by refusing to utilize to the fullest extent possible the capabilities of the agricultural college for training teachers in these lines.

The close relationship of the agricultural college to rural life and the understanding of rural conditions and problems which the college may be presumed to command therefore made the commission consider carefully also the question of advising extension of its training for elementary-school teachers with special emphasis upon the training of those who expect to teach in rural schools. This line of activity is not a common one for agricultural colleges, and the commission has already expressed its belief that training of rural teachers should



not differ in basic character from the training of other teachers. Nevertheless, the opportunities for close contact with the work of rural teachers and study of their problems, in so far as these problems are peculiar to rural conditions, are such as to make careful consideration of the question imperative.

The fact that the college is now serving as an important source of supply for rural teachers is established by the following table:

TABLE 29.—*Supply of rural teachers*

Teachers	1921-22	1922-23	1923-24	1924-25
Elementary teachers without degrees placed—				
In cities	0	0	0	0
Outside cities	0	20	25	28
Holders of the bachelor's degree placed—				
In cities	0	4	8	0
Outside cities	15	29	49	71
Holders of the master's degree placed—				
In cities	0	0	0	0
Outside cities	1	0	9	6

Training facilities are available in Logan and in the country schools of Cache County for practice teaching and observation.

In view of these conditions, the commission recommends that teacher training, including the training of elementary-school teachers, be made one of the major functions of the agricultural college and that present restrictions with reference to granting the bachelor's degree in education be removed. A school of education should be established accordingly at the agricultural college as a separate division and on a parity with other major divisions of the institution. It should be the function of this school to specialize in the training of elementary and high-school teachers for service under rural conditions.

The schools of Logan and Cache County should be utilized for observation and practice. The superintendents of schools of Logan and of Cache County should be closely affiliated with the faculty of the agricultural college in order that arrangements for practice teaching may function continuously and harmoniously. Supervisory teachers in Logan and in country schools should be appointed in cooperation between local boards and the agricultural college and should be paid extra salaries. Special preparation for their duties in connection with the teacher-training work of the agricultural college should be further rewarded by listing in the catalogue of the college as authorized supervisory teachers. All practice teaching should be under the direct and immediate control of the college school of education.

Since the lines of teacher-training work recommended for the agricultural college are specific and imply preparation to teach in

special fields, the diplomas granted by the college to graduates should indicate for the different teacher-training curricula the appropriate type of teaching for which the candidate is trained. Careful cooperation and coordination with the State department of education should guide the planning and modifications of curricula in the agricultural college school of education.

#### GRADUATE WORK

Little need be added to what has been said at other points in this report with reference to graduate work at the agricultural college. Graduate work should be developed in the college leading to the master of science degree in agriculture, home economics, agricultural economics, and in the sciences which are basic to agriculture and home economics.

At the present time the agricultural college grants a master-of-arts degree for work which in fact should lead not to a master's degree in arts but to a master's degree in science, adding perhaps the appropriate modification, e. g., M. S. in agriculture, M. S. in education. The distinctive graduate degree granted by the agricultural college should reflect the technical and scientific purposes peculiar to institutions of the land-grant type.

#### BRANCH AGRICULTURAL COLLEGE

The branch agricultural college at Cedar City was formerly a branch of the State normal school located at the university. In 1913 it was by legislative enactment made a branch of the Agricultural College of Utah and placed under the management, control, and direction of the board of trustees of the agricultural college. The same legal limitations with respect to its scholastic offerings were imposed as exist in the case of the agricultural college. It clearly was the intention that the branch agricultural college should be closely correlated with the agricultural college at Logan. The purpose was simply to make more convenient the attendance of people, especially boys and girls, in the southern part of the State. It was desired that they have the benefits of the work of the agricultural college without being put to the expense of going so far away from home. Until recently a great part of the work has been of high-school grade, and indeed at the present time the high-school work constitutes an important element of the instruction offered. The college work is intended to be of junior college grade.

It seemed to the commission that the administrative coordination with the agricultural college is entirely inadequate. The branch agricultural college exists largely as a separate school, although the



connection is, of course, closer than with the other educational institutions of the State. The president of the agricultural college interests himself in the financial matters of the branch college and is always available for consultation with the director. The loose organization of the agricultural college is also reflected somewhat in the organization of the branch agricultural college. There seems to be very little knowledge of the branch agricultural college on the part of the heads of departments and the deans of the schools in the agricultural college at Logan. Several of the professors at Logan have not visited the branch agricultural college for long periods of time. They know practically nothing of what is going on there in their own line of work. In other words, it seems to the commission that they are failing to be as helpful as they might. They should visit back and forth frequently, and, if possible, there should be quite an extensive exchange of work between the two institutions. One or two professors or instructors whose main work is at Logan should each year do a term or two of instruction at the branch college. In the same way instructors employed for work at the branch college primarily should also have an opportunity to teach for a term or two at Logan.

The branch agricultural college has to the south of it the church school of Dixie at St. George. This church school is a junior college and it may be a question whether in time there may not develop a form of competition between the branch agricultural college and Dixie. The following statistics show, however, that at present the clientele of the branch agricultural college is so very local that the competition is of no great importance:

TABLE 31. Enrollment in branch agricultural college by counties

Iron .....	131	Davis .....	2
Kane .....	14	Weber .....	2
Garfield .....	19	Millard .....	1
Washington .....	12	Plute .....	1
Beaver .....	8		

#### ENROLLMENT

The growth of enrollment of the branch agricultural college is extremely creditable. The following table indicates the enrollment by years of college and intermediate students. The classification of students as intermediate apparently is intended to designate those students who are doing part high-school and part college work. It will be noted that relative to the enrollment the number in this classification has steadily decreased.

TABLE 30.—*Growth of enrollment*

	1921	1922	1923	1924	1925	1926
College.....	5	10	28	35	57	78
Intermediate.....	95	132	109	72	73	82

## CATALOGUE

The catalogue of the branch agricultural college gives the impression that it is prepared especially for local use by persons not especially familiar with academic matters. There are numerous personal touches and detailed explanations which show clearly that it is intended to emphasize the personal and individual appeal. It is not a pretentious publication, but very properly presents the facts which would be of special interest to local prospective students. In some respects perhaps it is slightly repetitious and not especially well organized with reference to the reading matter, but these are matters of minor importance.

The branch agricultural college catalogue is somewhat remarkable as compared with the catalogues of the agricultural college and the university, in that all courses listed are given, except in those cases in which the catalogue plainly states that they will not be given during the current or succeeding year. This is, of course, perhaps a natural condition, since the number of courses is so very small and since it is possible to anticipate demands and faculty capabilities with considerable accuracy.

The number of classes of junior college grade with five students or fewer is almost one-fourth of the total number of classes conducted, as shown by the following tabulation:

TABLE 32.—*Classes of junior college grade, 1924-25*

Number of students in class	Number of classes
1-5	5
6-10	5
11-20	6
21-30	3
31-40	2

It is interesting to note that there are only two classes with between 31 and 40 students and none larger than this. In 1925-26 considerably more than half the classes ranged in size from 11 to 20 and only two classes were as small as 5 students. These figures indicate that improvement has been made in controlling class size and securing efficient teaching units.



By way of criticism of the work that is now carried on, the commission wishes to point out that the college courses in the various subjects should be based more decidedly on the previous work in the same field which students have taken in the high school. Examples of failure to so base work upon previous study may be found especially in the sciences, in home economics, and in agriculture.

In some respects the training of the instructional staff does not conform to the standards set for junior colleges by the American Council on Education or by the American Association of Junior Colleges. The standards provide that "Members of the teaching staff in regular charge of classes should have a baccalaureate degree and should have had not less than one year of graduate work in a recognized graduate school."

#### SALARY SCHEDULE

The highest salary paid is that of the director, \$3,300. The salaries of the instructing staff range from \$1,000 to \$2,500. The following table indicates the salaries paid and the number of instructors receiving salaries in each class:

TABLE 33.—Salaries

Salary	Number receiving salary
\$1,000	4
1,125	1
1,500	1
1,700	3
1,800	2
1,900	1
2,000	3
2,100	1
2,200	1
2,300	1
2,500	2
3,300	1

This salary schedule seems somewhat more suited for high school than for work of college grade. However, the salary schedule for junior colleges seems to be somewhat less than that for four-year institutions, and doubtless the rural conditions which prevail in Cedar City account for the low level of the schedule. In view of the fact, however, that some of the members of the faculty do not meet the standard conditions for qualifying them by previous training for the work in a junior college, an increase of salaries may be desirable in order to secure persons of more extensive training and experience.

The commission recommends that the course at the Branch Agricultural College cover agriculture, home economics, teacher train-

ing, and the arts and sciences. In the opinion of the commission this work should be outlined very definitely with two objectives wherever feasible. First, the work—and of course the college work is here intended—should be outlined as the first two years of a four-year course of study looking toward completion at the agricultural college or the university. In other words, the two years of college work should be limited to two years of junior college instruction preparatory to taking a degree at one of the other State institutions. The commission does not feel that the function of the Branch Agricultural College should be exclusively agricultural or preparatory for the four-year course at the agricultural college. Since it is a State institution located in a somewhat isolated section of the State the Branch Agricultural College should prepare for the university as well as for the agricultural college, at least to the extent which is possible without losing sight of the fact that the community is predominantly a rural community. The commission wishes especially to recommend that the school recognize its great obligation to local agriculture. The development of poultry raising is one form in which such guidance and assistance has already been undertaken. It appeared to the commission that perhaps similar service might be rendered in connection with soil study and other forms of enriching the economic life of the people.

Secondly, the courses should be outlined as completion courses intended primarily for students who do not expect to continue their education beyond the work given by the Branch Agricultural College. Courses of this kind should be distinctive and definitely shaped for the purpose of assisting the student to fit into his civic community life and obligations and to enrich his personal living, as well as for vocational purposes. In this connection the commission wishes to emphasize with respect to the Branch Agricultural College especially what has already been emphasized in connection with the agricultural college, i. e., the great importance and usefulness of the short completion courses and the short specialized courses designed to assist the local student in specific ways.

#### SUMMARY OF RECOMMENDATIONS

*General administration.*—1. That a board of 10 members, including the State superintendent of public instruction ex officio, appointed by the governor and confirmed by the senate, serving without compensation for a term of nine years, to be known as the State board of higher education, be substituted for the board of regents at the university and the board of trustees at the agricultural college, and that one member of the board retire each year and not be eligible for reappointment for a period of three years.



That in case the above recommendation is not acceptable the number of members of each of the boards of the two institutions be reduced to 10, including the State superintendent of public instruction, ex officio, as a member of both boards, the members to be appointed by the governor for a term of nine years, one retiring each year.

2. That consideration be given to the geographical distribution of the board membership throughout the State upon the basis of the seven judicial districts.

3. That the board or boards meet quarterly and that the executive committee be authorized to carry on the necessary business in the interim.

4. That the State board of higher education employ, upon the nomination of the two presidents of the institutions or upon their agreement, a competent research and financial secretary to have charge of the business offices of the two institutions and to act as a continuing agency for the gathering of information and arranging it in form intelligible to lay members of the board and to the people of the State.

In case two separate boards are retained, each should set up machinery for maintaining a continuous self-survey of its institution and seek to devise a method by which the work of these two agencies may be comparable in form and content.

5. That the fees for the agricultural college and the university be fixed, upon the basis of credit hours, at the same rate.

6. That the State board of agriculture continue in charge of the regulatory work of the State, maintaining close connection with the agricultural college and utilizing its facilities, under proper compensation, for testing purposes.

7. That State supervisors of agriculture and of trades and industries divide their time between the State department and the appropriate institutions.

*Institutional administrative problems common to the university and the agricultural college.*—1. That each department of the two institutions be responsible to and function through the dean of a school.

2. That the budget of each institution be made up by a uniform process of requests from department heads, through the deans, to the president.

3. That all communications from any members of the faculty or organization within the institution to the governing board be through the president.

4. That heads of departments and deans of schools initiate appointments, and that the president make all nominations for posi-

tions on the faculty direct to the governing board, after consultation with the deans and with the heads of departments directly concerned.

5. That the presidents and all members of the faculties of the two institutions of the rank of associate professor and above be placed upon indefinite tenure when employed and that other members of the faculty be subject to annual reappointment.

6. That both institutions reduce to the minimum the number of courses offered by the catalogue and not given.

7. That they reduce the proportion of classes with excessively large enrollments.

8. That the instructing personnel be increased so that the excessive teaching load now borne in certain instances may be materially reduced.

9. That both institutions develop more extensively systems of selecting students for admission to the institutions upon the basis of academic record, intelligence testing, and scoring of personal characteristics.

10. That both institutions utilize further than at present devices for adjusting the new student to his environment, such as freshman week, orientation courses, segregation of students in accordance with abilities, adaptation of subject matter and subjects of instruction to suit such classification, and assignment of new students to strong teachers.

11. That both institutions give special attention to students who do not seek a degree or contemplate a professional life, by providing special courses, short courses, two-year courses, extension courses, and junior college completion courses.

12. That an attempt be made to contribute to and regulate the social life of students through provision of dormitories, especially for the young women.

13. That attention also be given to provision of properly supervised dining halls.

*Use of plant.*—1. That provision be made at the university for an infirmary, and that provision also be made for an auditorium at the university which will accommodate at least half the students of the institution.

2. That minor improvements in decoration and equipment be provided in the university gymnasium buildings, especially with respect to the facilities for girls.

3. That improved library accommodations be provided for the university, preferably through the erection of a building architecturally and practically worthy of the library of a great university.



4. That careful attention be given to rescheduling classes so that the classroom facilities now afforded by the university plant may be utilized more completely.

5. That consideration be given to the matter of somewhat more careful housekeeping at the university.

6. That increased accommodation for the library of the agricultural college, if desired, be obtained by reduction of the number of extremely small classes and rescheduling of the space now available in the institution. No additional building should be undertaken in the immediate future.

7. That at the college of agriculture improvements be made in the physical structure of the gymnasium and that the military services be housed separately.

*Summer school and extension.*—1. That standards for extension credit and summer school work be determined for both institutions by the proposed board of higher education or by mutual agreement.

2. That both institutions continue to offer summer school work for educational officers and for teachers especially, with emphasis upon graduate work in the major fields peculiar to each institution.

3. That a committee designated by and reporting to the board of higher education, containing representatives of the university and the agricultural college, with a member of the proposed board of higher education or of the State department of education as a third member, be created for the purpose of coordinating and planning the extension work of the two institutions.

4. That great care be exercised that persons not regularly upon the resident staff of the two institutions, who are appointed to carry on extension work, be fully qualified educationally and otherwise.

*University administrative problems.*—1. That the administrative council of the university be abolished and that its functions be assumed by the dean's council, to which the general faculty should be permitted to elect from its own number two additional persons to serve with the approval of the president: that the full professors of the faculty constitute a senate before which matters of general policy and of dismissals may be brought for recommendation to the president.

2. That the university be provided with a dean of men and with a dean of faculty.

3. That the university students taking the prelegal and premedical courses should be registered in the school of arts and sciences and not in the law school and the medical school.

4. That the department of music in the university be extended and developed.

*Administrative problems of the agricultural college.*—1. That at the agricultural college the sciences basic to agriculture, agricultural engineering and home economics be developed as major courses of study in undergraduate work, graduate work and teacher training, but that the work in liberal arts be confined to service courses.

2. That the agricultural college emphasize the scientific tenor of its work by use of the degrees B. S. and M. S.

3. That duplicate listings of the same courses be ~~eliminated~~ from the catalogue, and that consideration be given to reducing the number of courses offered.

4. That the agricultural college abolish the school of commerce and business administration as a separate major division and that the work offered be divided between the school of basic arts and sciences and the school of agriculture.

5. That the school of agricultural engineering and the school of mechanic arts be combined into one school, the school of agriculture and mechanic arts.

6. That the experiment station of the agricultural college and the engineering experiment station be merged into one division.

7. That the number of departments be reduced materially: specifically that the departments of accounting and business practice, business administration, marketing, and stenography and typewriting be eliminated and their work placed under the department of agricultural economics; the departments of physiology and hygiene, of physical education and military science and tactics should be united in one department of health and physical education.

8. That coordination of teaching, research and extension work be secured in large part through informative conferences in which all elements of the agricultural college staff participate.

9. That the agricultural college transfer its publicity emphasis from other activities of the institution to those relating directly to rural life.

10. That the agricultural college devote more attention to methods of agricultural distribution and to the development of new products which may be added to the agricultural resources of the State.

*Teacher training.*—1. That both institutions cooperate heartily with the State department of education in the improvement of teacher-training work and facilities, especially in developing courses for State and county administrative school officials.

2. That the present legal restrictions with reference to teacher training be removed from the agricultural college and that the college develop teacher training as one of its major functions, especially in those lines closely related to its peculiar character as a land-grant institution.



3. That all scholarships awarded to students in undergraduate teacher training courses be abolished or, if this is not acceptable, that the number be reduced to one for each county, and that the method of selecting such scholars be such as to secure students who promise to develop into teachers of special excellence.

4. That high standards of physical qualifications be determined and applied to candidates for admission to teacher-training work at the beginning of their courses.

5. That all teachers in training devote at least two hours a week, throughout the two years of their special training, to personal hygiene, school hygiene, health examination, and health teaching, and that three hours a week throughout these two years be given to physical education.

6. That all higher institutions which desire that their prospective teachers receive certification from the State department of education, upon the basis of graduation from teacher training courses, be subject to thorough and frequent examination and inspection by the State department of education.

7. That the university and agricultural college cooperate with State and local school officials in planning and carrying on training in service for teachers.

8. That provision be made whereby the university faculty members may cooperate more closely in promoting the State's educational program.

9. That additional facilities be provided for research and graduate degree work in education.

10. That all practice teaching be under the direct and immediate control of the higher institution from which the student-teacher comes.

11. That the university develop a kindergarten-primary curriculum.

12. That the university require, under adequate supervision, from prospective rural teachers practice teaching in rural situations.

13. That if possible arrangements be made with the city schools of Salt Lake whereby students of the university may get practice teaching in the city schools under the supervision of persons directly responsible to the university.

14. That for purposes of experimentation and demonstration of new methods of instruction the university add to its present practice schools a senior high school.

15. That additional major officers be provided in the university and agricultural college departments of education, in sufficient number to develop the program indicated.

*Graduate work.*—1. That graduate work for the master's degree be developed in practically all major divisions of the university, especially in the schools of arts and sciences, education, mining and metallurgy, and archaeology.

2. That graduate work be developed by the agricultural college leading to the master of science degree in agriculture, home economics, agricultural economics, and in the sciences which are basic to agriculture and home economics.

*Engineering.*—1. That courses of study in agricultural engineering be developed exclusively by the agricultural college.

2. That courses of study in civil, chemical, electrical, mechanical, and mining engineering be developed exclusively by the university.

3. That short courses in mechanic arts be developed both at the agricultural college and at the university.

4. That the laboratories for the development of highway engineering research and testing be located at the university, and that the university conduct testing for the State highway commission, with proper compensation for this service.

5. That the agricultural college and the university divide the work of highway engineering upon the basis of leadership in research by the university and instruction in highway engineering as it relates to the open country by the agricultural college.

*Commerce and business.*—1. That the agricultural college be assigned the exclusive function of developing the field of agricultural economics, including the marketing of agricultural products, in undergraduate and graduate aspects; and that the work of developing other aspects of commerce and business as major fields be the exclusive function of the university.

*Home economics.*—1. That both institutions continue to offer home economics for home makers and for the training of teachers.

2. That research and graduate work in child welfare and child nutrition be confined to the university.

3. That the agricultural college undertake research in the field of adult teaching with reference to home economics work, and that it develop more extensively training for county home demonstration agents.

4. That both institutions survey the field to determine other lines of service in home economics which may be rendered.

5. That a cooperative arrangement be entered into whereby the State department of education, the agricultural college, and the university divide the time of the State supervisor of home economics.

*Health.*—1. That a special course of one semester for graduate nurses be provided by the university, probably during the summer quarter.



2. That the courses in personal and public health for freshmen at both institutions be given an allotment of three periods a week for one quarter.

3. That the physical examination of the students conducted by the agricultural college be made more thorough.

*Medical course, university.*—1. That for the present no attempt be made to hasten unduly the development of a four-year course at the university.

2. That as a preliminary to future development of a dental school a pre-dental year be offered.

3. That facilities for instruction in pharmacy be strengthened so as to meet fully the standards of the law for registration as pharmacists.

*Branch agricultural college.*—1. That the relationship between the branch agricultural college and the agricultural college at Logan be made very much closer.

2. That the course at the branch agricultural college cover agriculture, home economics, teacher training, and the arts and sciences.

3. That the work of the branch agricultural college be organized to serve, first, as preparatory to degree work, at the other State institutions and, secondly, as completion courses intended primarily for students who do not expect to continue their education beyond the work given by the branch agricultural college.

4. That instruction at the branch agricultural college be based more completely upon previous work in the same fields which students have taken in the high school.

5. That the standards of training of the instructional staff be made to conform to those set up for junior colleges by the American Council on Education.

## Chapter VIII

### ELEMENTARY SCHOOL TEACHERS

Regardless of what may be provided in buildings, equipment, supervision, and administration, a poor teacher makes a poor school; a good teacher, a good school. The expenditure for salaries of elementary-school teachers is by far the largest expenditure the school system has to bear. It amounts to approximately three-fourths of the total expenditure for elementary schools. Practically all of the other expenditures are for the purpose of making the teachers' work more effective. Consequently, one of the most important duties of school administrators is to fill each teaching position with a well-prepared, competent teacher. Having done this, their obligations to the community are not fulfilled until they provide suitable conditions and exert those influences necessary to assure improvement from year to year in the effectiveness of each teacher.

#### NUMBER

The State of Utah is conspicuous because of the wholesome attitude exhibited toward teaching as a profession. It is not thought of as a makeshift vocation to be followed only until something better may be found. Hundreds of the young men and young women of the State are choosing it as a life work and are enrolling in such professional courses as the teacher-preparing institutions of the State are providing. The elementary schools of the State, according to statistics furnished by the department of public instruction, in 1924-25 employed 2,558 teachers, distributed among the different types of schools as follows:

TABLE 1.—*Number of elementary-school teachers, 1924-25*

Type of school	Men	Women	Total
Rural one-teacher schools	12	104	116
Rural two-teacher or larger schools	204	1,352	1,556
City schools	18	868	886
Total	234	2,324	2,558

In addition to the above the rural elementary schools employ 323 (283 men, 40 women) principals, practically all of whom serve as



regular classroom teachers. The city elementary schools employ 56 (24 men, 32 women) principals.

*Sex.*—The large number of men in elementary-school positions in the State is noticeable. That in Utah a larger per cent of the elementary teachers are men than in the other States in that section of the country is shown in the table here given. In fact, it is exceeded in this respect by only five States in the United States: Arkansas, 32.7; West Virginia, 30.5; Mississippi, 26.3; Kentucky, 25.2; and Indiana, 23.1.

TABLE 2.—*Number and percentage of men teachers in certain States, 1923-24*<sup>1</sup>

State	Total number of elementary teachers	Number of men elementary teachers	Per cent of elementary teachers who are men
New Mexico	2,385	468	19.62
Idaho	3,312	417	12.59
Arizona	2,251	253	11.25
Oregon	5,558	514	9.24
Wyoming	2,351	214	9.10
Montana	5,262	367	6.97
Colorado	7,172	436	6.08
Nevada	611	37	6.05
Washington	7,307	463	6.32
California	18,452	765	4.15
Total	54,661	3,874	7.09
Utah	3,372	752	22.30
Continental United States	617,078	76,816	12.45

<sup>1</sup> Data taken from U. S. Bu. of Educ. bul., 1925, No. 42.

Although no tangible evidence is available, the influence of so large a proportion of men on the children in the elementary schools is, no doubt, excellent. No argument is here implied against the efficiency or desirability of women teachers; their merit is attested by past performance. The masculine influence, however, upon the pupils and the other teachers is highly desirable. This implies, of course, that the men teachers are as adequately prepared as women for teaching elementary-school pupils, and that they also continue their professional fitness through study and occasional attendance at teacher-preparing institutions. No separate study was made of the professional preparation and in-service training of the men teachers versus the women teachers in the elementary schools. Members of the survey staff responsible for observing classroom instruction, however, were agreed that the work in general of the men teachers indicated less professional preparation and spirit than that of the women teachers observed. Further study is necessary to ascertain whether or not this is due to the fact that the men teachers in Utah consider teaching as only one of two or more income-producing positions they carry on, with the result that their attention is divided, and that consequently they lack a proper respect for professional

preparation. Whatever may be the cause, school authorities should insist that men as well as women meet all of the requirements for professionally trained teachers. The exigencies of such a requirement are even more apparent when it is recalled that a very large number of these men also serve as or are likely to be appointed as principals of the elementary schools in which they teach.

*Size of classes.*—"That there is little difference between the achievement of the pupils when taught in large classes and their achievement when taught in small classes" (Bul. No. 10, Bu. of Educational Research, College of Education, University of Illinois, "Relation of size of class to school efficiency") does not imply that the teaching load is not heavier in the former case. The number of clock hours per week for teachers is a better measure of a teacher's load. In Utah, however, little difference was found among the teachers in this respect. They reported that the demand on their time to direct extra-curricular work was almost negligible. The number of pupils per teacher varied considerably in the districts. Members of the survey staff visited schools ranging in size from 6 pupils to 58 pupils in attendance per teacher.

A study of statistics of Utah for several past years follows (Bureau of Education Biennial Survey reports):

TABLE 3—Elementary school enrollment and attendance

Year	Number of elementary-school pupils		Per cent of pupils in average daily attendance	Number of elementary teachers	Number of pupils	
	Enrolled	In average daily attendance			Enrolled per teacher	In average daily attendance per teacher
1924	106,970	97,842	91.5	3,372	31.7	29.0
1922	103,720	95,282	92.0	3,259	31.8	29.1
1920	103,276	85,282	82.6	3,202	31.7	26.1
1918	100,096	77,757	77.7	2,978	33.6	26.1

The number of pupils enrolled per teacher from 1918 to 1924 has decreased 5.7 per cent. During this same period, however, due to better daily attendance, the average number of pupils per teacher in school each day has increased 11.1 per cent. The fact that fewer pupils absent themselves from school tends to make the work of teaching easier.

As suggested at the beginning of this section, large classes may mean heavier teaching loads. Thus far no studies have been reported indicating how large a class an unassisted teacher may teach without unduly drawing upon his mental and physical reserves. Such a study might be made by the research division proposed else-



where in this report. The results of scientific experimentation<sup>1</sup> support the statement that a slight increase in the number of pupils in a class the size of the average in Utah should not decrease the efficiency of instruction. A study (Bull. No. 19, Bu. of Educ. Research, College of Education, University of Illinois, "The Progress and Elimination of School Children in Illinois") of 82 elementary school systems in Illinois, one-half of which were schools in towns and villages of less than 2,500, and hence quite similar to conditions found in Utah, shows the median class size in these schools to be 36.4 pupils. Should Utah care to increase the average class size by 15 per cent and thus approximate the Illinois average, the least efficient teachers could be released, slightly higher salaries could be offered for advanced professional training to those retained, and, at the same time, a saving could be made in the budget. In assigning larger classes, according to the Ohio State University study previously referred to, the customary practice of assigning larger classes to primary than to upper grade teachers should be reversed.

Utah makes a good showing in comparing its statistics with those of the States in the same section of the country on the basis of the average number of pupils in daily attendance per teacher in 1923-24.

TABLE 4.—*Number of pupils in daily attendance per teacher in certain States, 1923-24*

States	Total number of elementary		Ratio of number of elementary pupils in average daily attendance to number of elementary teachers
	Pupils in average daily attendance	Teachers	
California.....	564,401	18,452	30.6
Washington.....	197,056	7,307	27.0
New Mexico.....	58,063	2,385	24.4
Oregon.....	119,321	5,558	21.5
Arizona.....	47,419	2,251	21.1
Nevada.....	50,193	611	16.6
Montana.....	79,544	5,262	15.1
Wyoming.....	34,284	2,351	14.6
Colorado.....		7,172	
Idaho.....		3,312	
Total.....	1,150,311	54,661	21.0
Utah.....	97,842	3,372	29.0
Continental United States.....	10,637,954	617,078	17.2

<sup>1</sup> Data taken from U. S. Bur. of Educ. Bul., 1925, No. 42.

Of those States in the same section of the United States, Utah is exceeded in the number of pupils in daily attendance per teacher

<sup>1</sup> University Studies, Vol. II, No. 16, Bu. of Educ. Research Monographs No. 3, Nov. 30, 1925, Ohio State University, "Class Size in the Elementary School."

by only one, California. Of all the States in the United States it is nearly equaled or exceeded by 11: Alabama (28.9), Arkansas (31), California (30.6), Connecticut (31.2), Indiana (32), Kentucky (29.5), Massachusetts (28.7), New Jersey (29), Ohio (28.3), Pennsylvania (31.8), and Tennessee (29.6). The favorable position held by Utah may be partly explained (1) by the predominant type of social life found in Utah, with its resulting smaller percentage of small community schools, especially one-teacher rural schools, and (2) by the fervor of a large number of the people of the State for developing their intellects.

### EDUCATIONAL QUALIFICATIONS

One needs, in addition to the personal qualifications essential to success in teaching, the scholastic preparation necessary for an informational background and for an understanding of the scientific principles underlying classroom management and the art of teaching. The most objective measure of such scholastic preparation is the amount of high-school work, normal-school preparation, and in-service training the teacher has had.

*High-school and normal-school preparation.*—Reports on the educational qualifications of the teachers in 31 of the 35 school districts in the State, excluding city districts, show that all were high-school graduates except 4 teachers in one-teacher schools, 2 in two-teacher schools, and 20 in larger elementary schools with high schools attached. The accompanying table shows the years of schooling above high-school grade for the teachers reported in the 31 districts:

TABLE 5.—*Educational preparation of elementary teachers in 31 school districts*<sup>1</sup>

Years of professional training above high-school grade	Teachers in elementary schools								Total			
	Without high school attached								With high school attached			
	In 1-teacher schools		In 2-teacher schools		In 3-teacher schools		In 4 or more teacher schools		Teachers		Number of teachers	Per cent of teachers
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent		
None	1	1.1	1	0.6	1	0.5	98	6.4	104	11.9	205	7.6
Less than 1 year	10	11.0	9	5.4	11	7.1	5	0.3	1	0.1	39	1.5
More than 1 year, less than 2 years	39	42.9	44	26.2	73	37.0	320	20.9	25	3.6	501	18.6
2 years or more	41	45.0	114	67.8	109	55.4	1,110	72.4	566	81.4	1,940	72.3
Total	91	100.0	168	100.0	197	100.0	1,533	100.0	696	100.0	2,685	100.0

<sup>1</sup> Reports from North Summit, Piute, San Juan, and Weber school districts were not received in time for the tabulation. The five city districts were purposely omitted.



Fewer than one-half of the teachers in one-teacher schools, and slightly more than one-half of those in three-teacher schools have had the two years of professional training which is considered the standard amount of preparation necessary for elementary-school teachers. Twenty-eight per cent of all the teachers reported fail to reach this goal. Seven and six-tenths per cent were reported as having no professional training, 1.5 per cent had less than one year, and 18.6 per cent had between one and two years. As is usually the case, the rural teachers in one-teacher schools are the most poorly trained group of teachers in the State.

However, contradictory as it may seem, practically all of the teachers in the groups of those who have not completed their high-school education and those who have had no professional training are employed in schools with four or more teachers. Most of these teachers, no doubt, have been in the service for a number of years. In past years it was assumed that teachers who entered the teaching profession with sufficient knowledge and ability to obtain teachers' certificates were qualified to continue teaching almost indefinitely in the elementary grades. Such a point of view is no longer held. School authorities consider it well within their authority to require each teacher to add to his present training six weeks of professional training each year until he has at least reached the standard amount thought by educators necessary to prepare satisfactorily for elementary teaching.

Among those with less than two years of professional training are 55 per cent of the teachers in one-teacher schools, 32 per cent in the two-teacher schools, 45 per cent in the three-teacher schools, 28 per cent in the four or more teacher schools in buildings without high schools, and 19 per cent in the latter group in buildings with high schools. Of the total number of teachers, 72 per cent have completed two years or more of professional training. This latter statement, however, is not so encouraging as it at first appears. In the questionnaire no limitations were placed upon what kind or quality of course might be included in the years recorded as professional training. The two years of work beyond high school must be directly related to teaching in the elementary schools if these teachers are to be trained satisfactorily. A single purpose—a well-prepared elementary teacher—should dominate the entire curriculum. The teacher-preparing curricula in Utah have too often consisted of the usual freshman and sophomore liberal arts college courses with an insufficient amount of professional courses for elementary teachers. (See the sections on higher institutions of learning and State organization for administration.)

A study recently completed by the State department of public instruction of the credentials submitted by teachers applying for cer-

tificates throws further light on probable educational training of the teachers of the State. Unlike the preceding data, this study includes the teachers of all the city and country district schools.

TABLE 6.—*Certificates most frequently held by elementary teachers, March 15, 1926*

Grade of certificate	Present requirements for certificate based on high-school graduation	Number of teachers with certificate known		Per cent of teachers with credentials known not to meet requirements
		To meet present requirements	Not to meet present requirements	
Second class	1 year of college or normal school credit	159	22	4.5
First class	2 years of college or normal school credit; or approximately 1 year of college or normal school credit and 2 years' experience	1,285	92	6.7
Grammar grade life	2 years of college or normal school and 5 years' experience, 2 of which in Utah	274	60	56.1
Total		2,018	164	

180 per cent of these estimated to have been issued on 2 years of credits.

2 No office record of credentials earned by holders of this certificate since issuance of certificate.

Assuming that those who failed to meet the present requirements for the grammar grade life certificate did so on account of insufficient college work, and allowing the State department's estimate that 20 per cent (257) of those meeting present requirements for first-class certificates qualify on the basis of one year of college and two years of teaching experience, 1,180 teachers—48 per cent of those whose certificates are especially designed for country and city elementary-school teachers—probably have educational qualifications of less than two years beyond high-school graduation.

Members of the survey staff feel that the school authorities have been very lenient with the teachers in enforcing the requirements of higher educational qualifications. One school board wrote that it had been their hope to hold absolutely to the new requirements of certification, but that they found it quite impossible without dismissing some of its teachers. Consequently, it recanted somewhat and tried to live as near the letter of the law as possible. Other districts had to threaten withholding certain teachers' pay because they did not hold proper certificates. Such conditions should not exist. Teachers should be required to show that they have the proper credentials before school officials consider them as candidates for positions.

*In-service training.*—Utah is to be congratulated on the requirement that, after 1925-26, beginning elementary-school teachers must be graduates of two-year normal school courses with high-school



graduation or its equivalent as a prerequisite. This requirement, however, does not concern those teachers already in service. With teachers below the standard on previous training, methods of training in service are naturally of interest. A common method of in-service training followed by teachers independently is professional reading. Although the teachers were not requested by questionnaire to record such information, they were frequently asked by visiting members of the survey staff concerning the professional books and magazines they had read during the year. The answers were not unlike those usually found and reported in State surveys. Comparatively few teachers not in extension courses had read any professional books. A number of the teachers said they read educational magazines. The magazines that they named, however, were usually the Utah Educational Review or one of the well known "devices and methods" magazines. The advice and suggestions for classroom procedure found in the latter class of magazines are helpful to teachers with little training, but are not suitable for well-trained teachers nor contributory to their professional growth.

Teachers' meetings were held regularly by some of the principals, but as agencies for "in-service" training they functioned little if any. These meetings concerned themselves chiefly with questions of local school administration rather than problems of supervision and the improvement of instruction. Teachers' meetings under the leadership of progressive principals should be encouraged, since they are potent factors in improving the work of teachers. Principals capable of directing such meetings, however, are not usually those such as many of the school boards have chosen for the position on the mere qualification that they are the oldest teachers in their respective buildings. Such principals usually have worthy motives, but very little special training for their new work. They fail to recognize the difference between their newly added duties as supervisors (see section on supervision) and their function as classroom teachers, which most of them continue to perform. Teachers' meetings to be effective as in-service training must be directed by leaders who have kept up with the rapid growth in educational ideas and ideals that call for constant revision and enlargement of the elementary school curriculum and teacher's technique.

The reports from the district superintendents on the educational qualifications of the teachers showed that 40.2 per cent of their teachers attended summer school last year. The vast majority of them attended the University of Utah, the Utah Agricultural College, and Brigham Young University. A very small percentage went outside of the State to the University of California, University of Chicago, Columbia University, University of Southern California, and Colorado State Teachers' College.



During the year 36.3 per cent of the teachers were registered in extension and correspondence courses. Practically all of these were taken in the Utah Agricultural College, University of Utah, and Brigham Young University. Although some superintendents consult with and recommend to their teachers the courses they need most to improve their work as teachers, this practice is not commonly followed.

Enrollment in summer schools and extension courses should be encouraged. The growing practice of having well organized, definite courses of study along continuation lines in teacher centers in the different States indicates that such continuation training is meeting with success. Experienced teachers, as well as beginning teachers, should enroll in such courses. Quoting from another survey:<sup>2</sup>

Far from developing within students a thirst for additional study, college, or normal graduation too frequently leaves them with a feeling that their education is sufficient and that further efforts in that direction are unnecessary.

It has become obvious that one can not prepare at the beginning of life to be a successful teacher during his remaining years without continued training. It wards off over-conservatism and promotes enthusiasm and an aptitude to learn. Continuing the above quotation:

It is recommended that teachers who have not graduated from a normal school or college within the past five years and who desire to be retained be given the option of attending summer school either during the coming summer or the one following. No teacher should permit herself or be permitted by the board to continue in service if she has not attended a summer school within the last five years.

There has been little definite provision in most districts for stimulating teachers in service to improve themselves. Salary increases for summer school attendance were seldom granted until the teachers had done work the equivalent of approximately one additional year. It is highly advisable that Utah school boards should follow the practice established in many States of encouraging professional study by a well-organized plan, adequately financed, thereby stimulating teachers to a continuation of professional growth through the various agencies provided for such.

#### TEACHING EXPERIENCE<sup>1</sup>

Data secured from the superintendent of public instruction concerning the teaching experience of the elementary and high-school

<sup>1</sup> Educational Survey of Janesville, Wis., State Department of Public Instruction, Madison, p. 89.

<sup>2</sup> The data in this section were taken from reports that did not separate the elementary from the high-school teachers. Consequently they are treated together.



teachers of the State, and comparable data from the States of Missouri and New York, follow:

TABLE 7.—*Number of years' experience in teaching*

Years of teaching experience	Utah teachers, in 1924-25 <sup>1</sup>				Missouri teachers, in 1922-23 <sup>2</sup>	New York teachers, in 1923-24 <sup>3</sup>
	In four city districts		In county school districts		Number of teachers	Per cent of total number
	Number of teachers	Per cent of total number	Number of teachers	Per cent of total number		
0.....	29	6.0	315	11.4	3,525	15.4
1.....	33	6.9	398	14.4	2,880	12.4
2.....	34	7.0	347	12.6	2,531	11.0
3.....	38	7.9	263	9.5	2,049	9.0
4.....	28	5.8	216	7.8	1,688	7.3
5.....	36	7.5	192	6.9	1,626	7.1
6.....	32	6.6	174	6.3	3,250	836
7.....	36	7.5	137	5.0		730
8.....	27	5.6	103	3.7		564
9.....	23	4.8	90	3.3		564
10.....	18	3.7	78	2.8	5,419	418
11-15.....	77	16.0	266	9.6		4,087
16-20.....	32	6.6	115	4.2		
21-25.....	26	5.4	38	1.4		
26 or more.....	13	2.7	30	1.1		
Total.....	482	100.0	2,762	100.0	22,998	100.0
First quartile.....	2.6		0.9		0.8	0.6
Median.....	6.3		3.3		3.3	3.1
Third quartile.....	11.4		7.3		8.6	9.3

<sup>1</sup> Data for Salt Lake City and Piute districts not available.

<sup>2</sup> Table 50, "Facts concerning public education in Missouri," State superintendent of public instruction.

<sup>3</sup> Compiled from Table 3, "Teaching personnel in village and rural schools, 1923-24," University of the State of New York, Bul. No. 823, Mar. 1, 1925. "Village" includes places under 4,500 population.

County school districts include all the schools except those in the five city districts in Utah. Consequently teachers in towns of two, three, four, and even five thousand inhabitants are included in county school districts. The median number of years of teaching experience in these districts was slightly more than half as many years as in the four cities reported. The 3.3 median years of teaching experience for teachers in county school districts in Utah is nearly the same as for all the teachers in Missouri, including their thousands of one-room-school teachers and for all the teachers in New York State in schools located in centers with populations of 4,500 or less. It must be recalled that Utah, because of her characteristic type of social life, has approximately only 100 one-teacher rural schools to be included in the above averages, whereas each of the other two States has several thousands of such schools. One-fourth of the teachers in Utah have had 7.3 or more years of experience, which is considerably less than the 8.6 years for the upper fourth of the New York teachers and the 9.3 years for the Missouri teachers. The per cent of men teaching in rural schools is larger in Utah than in either New York or Missouri, which, together with the fact that the rural

men teachers in the State average <sup>4</sup> a greater number of years' experience than the women, indicates that women teachers remain in the profession a somewhat shorter average period than the women teachers in either of the other two States.

#### TEACHING TENURE

A study of the tenure of the 2,462 elementary-school teachers reported shows that 691, or 28 per cent, were teaching their first year in the school district; 435, or 18 per cent, their second year; and 1,336, or 54 per cent, their third or more years in the same district. Eight hundred and sixty-four, or 35 per cent, were teaching for the first time in their present position, which percentage agrees very well with the annual turnover of 37 per cent estimated by the superintendents in these same districts; 863, or 35 per cent of the teachers, were teaching the second year in their present position; whereas the remaining 761, or 30 per cent, had previously taught two or more years in their present positions. Although the average tenure in Utah is higher than in many States, it still falls considerably lower than the number of years necessary if teachers are to become well acquainted with conditions in their school districts and to do the efficient type of work their profession merits.

The research division in the State department of public instruction, proposed elsewhere in this report, might devote some time to a study of the chief causes in Utah of teachers shifting from school to school. In how far is it due to low salaries, to unpleasant conditions of work, to an acceptance of the belief that within a couple of years a teacher can give her best to a school and should then move on to another school, or perhaps to failure on the part of the teacher, which makes a change of position imperative? Furthermore, what steps should be taken by communities, school authorities, teachers, and teacher-preparing institutions to remedy the situation?

#### SALARIES OF ELEMENTARY-SCHOOL TEACHERS AND PRINCIPALS

The salaries paid the elementary-school teachers and principals vary considerably not only among the different school districts but also nearly as much among the different teachers within the same district. The range and distribution of the salaries paid are given in Table 8:

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<sup>4</sup> Unpublished thesis, department of education, University of Utah, "Some of the Factors Which Influence Teachers' Salaries in the State of Utah," by Matthew F. Noall.



TABLE 8.—*Distribution of salaries of elementary school-teachers and principals, 1924-25*

Salary class (in dollars per school year)	Elementary school-teachers						Elementary school principals					
	In county school districts						In county school districts					
	One-teacher schools			Two-teacher or larger schools			In 5 city districts			In county school districts		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
\$476-\$575	2	4	6	3	10	13						
\$576-\$675		3	3		37	37						
\$676-\$775	3	35	38	10	283	293						
\$776-\$875	3	29	32	29	428	457				11	11	
\$876-\$975	1	15	16	29	271	300	12	44	56	24	7	31
\$976-\$1,075	1	15	16	45	159	204	4	19	23	7	3	10
\$1,076-\$1,175	1		1	48	143	191		29	29	14	4	18
\$1,176-\$1,275		2	2	20	21	41				68	20	88
\$1,276-\$1,375		1	1	14		14	1	138	139	109	3	112
\$1,376-\$1,475				6		6		638	638	11	1	12
\$1,476-\$1,575	1		1				9		9	24	1	25
\$1,576-\$1,675											4	4
\$1,676-\$1,775										11		11
\$1,776-\$1,875										1	1	2
\$1,876-\$1,975											3	3
\$1,976-\$2,075												
\$2,076-\$2,175												
\$2,176-\$2,275												
\$2,276-\$2,375												
\$2,376-\$2,475											17	17
\$2,476-\$2,575											13	13
\$2,576-\$2,675											2	2
Total	18	104	122	204	1,352	1,556	18	868	886	282	40	322

<sup>1</sup> The five city districts are Logan, Murray, Ogden, Provo, and Salt Lake City.

The distribution was also computed (but not included here) using \$25 instead of \$100 for the salary interval. From this table the following data were computed:

TABLE 9.—*Summary of salaries of elementary school teachers and principals, 1924-1925*

Range in salary	Elementary school teachers						Elementary school principals					
	In county school districts						In county school districts					
	One-teacher schools			Two-teacher or larger schools			In 5 city districts			In county school districts		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
First quartile	\$709	\$721	\$715	\$932	\$777	\$784	\$1,017	\$1,324	\$1,323	\$1,190	\$1,089	\$1,184
Median	800	817	816	1,021	854	871	1,448	1,384	1,384	1,217	1,280	1,248
Third quartile	826	898	898	1,118	972	1,052	1,538	1,393	1,344	1,368	1,335	1,348

<sup>1</sup> The 5 city districts are Logan, Murray, Ogden, Provo, and Salt Lake City.

In every type except the one teacher school men receive higher median salaries than women. In most instances, however, the difference is small. The first quartile salaries (Table 9) of the women in the one-teacher schools and in the five city districts exceed those of the men. In all of the third quartile range the salaries of the men exceed those of the women teachers. The difference in average salary between the elementary teachers in the five city districts and those in the two-teacher or larger schools in the rural districts is much greater than is found between the latter group and those teaching in one-teacher schools. The median salary of teachers in one-teacher schools is much higher in Utah than for the United States as reported in the Bureau of Education Rural School Leaflet No. 39. This is not the case, however, if the salaries are compared with those of teachers in States with professional qualification requirements similar to those in Utah. Salaries of teachers in two-teacher or larger schools outside the five city districts are considerably lower than for teachers in similar schools in other States with equal professional qualification requirements. Although the median salary of the principals in rural districts is considerably above that of the teachers in the same schools, it is \$104 less per year than that of teachers in the five city districts and but slightly over one-half as much as that of the city principals.

More significant, however, than the fact that salaries in Utah are lower than in other States with similar professional qualification requirements is the fact that little relationship is found to exist between the salaries paid and the teachers' professional preparation. Teachers with a minimum of professional training are paid nearly as much as those with much training. Increases in salaries have come about mostly because of length of service. The amount of professional preparation has had apparently little influence on the attainment of a maximum salary. The preparation of a salary schedule adaptable to the varying needs of different sections of the State could well be delegated to the research division in the State superintendent's office proposed elsewhere in this report. Such a schedule, scientifically prepared, should make provision for increases in salaries on the bases of such factors as professional improvement, experience, and teaching efficiency. Furthermore, it should make adequate allowance for compensating "peripheral" teachers—those teaching in more or less isolated localities, who are denied the social and cultural advantages accruing to teachers in more densely settled communities. A bonus, such as is given one-teacher school teachers in Maryland, in addition to the regular salary for elementary teachers as listed in the schedule, should serve to equalize the situation and attract as well-qualified teachers to these positions as may be found in the other elementary schools in the State.



## PERSONALITY AND TEACHING SKILL

Although data concerning the teachers were available, such objective measures as age, sex, amount of professional study, years of experience, and educational achievement of pupils as measured by standardized tests are not in and of themselves sufficiently complete for the measurement of teaching ability. Consequently, it was deemed advisable for members of the survey staff to observe some elementary school teachers at work with their pupils. The following number and types of schools were visited: Five one-teacher, 10 two-teacher, 16 open country three or more teacher, 82 small village, and 28 town or city schools. Five members of the staff reported having observed 163 different class recitations or activity periods distributed as follows: Reading 57 lessons, arithmetic 29, English 13, history 12, geography 12, spelling 12, health work 11, penmanship 6, music 3, drawing 3, miscellaneous 5.

The observations were distributed throughout the grades, varying from 16 in the third, seventh, and eighth grades each to 27 in the first and fourth grades each. One hundred and forty-one different teachers—28 men, 113 women—were observed at work. According to the judgment of the observers, the class work proceeded as under normal conditions in 54 per cent of the rooms, was slightly disturbed in 40 per cent of the rooms, and was greatly disturbed in 6 per cent of the rooms, due to the presence of the surveyor. These conditions were taken into account in passing judgment on the work observed.

The survey commission felt that, on the whole, formalism predominated in the schools of Utah; those visited were not abreast of the times. The teaching was too much from books and too little from things. The textbooks seemed to be the chief factors in determining what was given the pupils. In a number of classes visited the teacher with the open textbook before him merely asked the pupils such questions as were suggested by the content of the text. More or less to the exclusion of those abilities it is desirable to develop in pupils, teachers seemed to think of education chiefly in terms of facts to be memorized. They required the children to learn facts, but seldom provided opportunities in actual situations through which the children themselves might discover, formulate, and express the ideas to be developed in the lesson.

In their treatment there was little evidence of the normal relationships existing among the school subjects. Each subject meant a book and a separate and distinct body of knowledge. English had little function except in English classes. Parenthetically, it may be added that the surveyors were impressed with the prevalence of mistakes in English on the part of the teachers. Mistakes in gram-

mar, sentence structure, pronunciation, and spelling of fairly simple words.

Classroom and educative equipment, for the most part, were meager. Little evidence was apparent, however, of a felt need for illustrative materials. The teachers appeared poorly trained in methods of economizing class time. A large number of them showed poor management and application of the principles of psychology in not opening class work promptly and effectively, in using the blackboard too little, and in failing to organize and keep small groups of pupils at work.

The responsibility for most of these conditions on the part of the teachers may be attributed to poor training. Teacher-training institutions pay too little attention to the concrete materials that have to do with elementary school class work. An increase in the pre-service training in the percentage of time given to professionalized subject-matter courses, supplemented by a liberal amount of adequately supervised observation and practice teaching of a high quality, one that incorporates the results of modern research and experimentation in education, will do much to improve the present practice. (See also the chapter on supervision.)

The surveyors observed whether the dominant method of instruction followed by each teacher was that commonly known as the disciplinary, the socialized, or the purposing. Dr. S. A. Courtis<sup>5</sup> gives the following comparative analysis of the important elements of each method:

Elements	Disciplinary	Socialized	Purposing
Goal	Knowledge and skill		Attitudes and ideals
Basis of organization	Textbook	Judgments, topics	Projects
Basis of control	Teacher domination	Motivation	Purposes
Method of recitation	Question and answer	Discussions	Activities
Unit	Mass	Group	Individual

The reports indicate that 86 per cent of the lessons observed were judged to be predominantly disciplinary in method of instruction, 9 per cent predominantly socialized, and 5 per cent predominantly purposing.

It was desired further to obtain some measure, even though it be crude, of the personality traits and the teaching skill and technique of the teachers observed. Personality traits were interpreted to include such traits as vitality, general intelligence, professional spirit and growth, emotional equipment, executive ability, social intelligence, and adaptability. Teaching skill and technique were inter-

<sup>5</sup> In *Manual of Directions for Making Efficiency Card Ratings*, January, 1923, published by Board of Education, Detroit, Mich.



puted to include such factors as stimulating pupils to think, make judgments, use initiative, execute; increasing pupil skills, fund of information, appreciation; creating wholesome ideals and attitudes.

The inability of judges to measure and rate the same people on an objective scale with similar results has been pointed out by Knight and Franzen. Consequently for the purposes of this survey a rating was not used that involved concepts of virtues, but a system of ranking persons according to their relative merits. A marking scale of five letters was used: A, B, C, D, and E. The surveyor was asked to assign values to each grade following the plan suggested by Dr. Harold O. Rugg in "Self-Improvement of Teachers Through Self-Rating: a New Scale for Rating Teachers' Efficiency," *Elementary School Journal*, vol. 20, May, 1920. For each teacher trait, or composite of traits, he was asked to select three teachers from his life experience: (1) The one to be rated as "A" being the best teacher in this trait he had ever known, (2) the one to be rated as "E" being the poorest, and (3) the one to be rated as "C" being the representative average teacher. Teachers judged between "A" and "C" were to be rated "B" and similarly those between "C" and "E" were to be rated "D."

In personality traits the teachers were judged to be slightly above the average. Three were rated as A, 34 as B, 73 as C, 29 as D, and 2 as E. Grouping the teachers according to the predominant method of instruction used, those using the socialized method were rated as slightly superior to either of the other groups, and those using the disciplinary method were rated lower than those using the purposing method. In judging the teaching skill and technique the surveyors were instructed to show prejudice neither for nor against the particular method a teacher used, but to rate the teacher on skill shown in the method used. As judged, the 12 teachers using the socialized method appeared to realize most nearly the goal of this method; those using the disciplinary method to realize less nearly their goal; and the eight teachers following the purposing method to realize least fully the goal suggested by the advocates of this method. It will be recalled that in personality traits these latter teachers were judged to be about the same as those using the socialized method and slightly superior to those using the disciplinary method. This should not be interpreted to be a criticism of the method used. It is rather an indication that those teacher-preparing institutions, superintendents, and supervisors who believe in the educational philosophy underlying the purposing method should more carefully guide teachers during their preservice and in-service training to understand and apply more effectively the technique necessary to accomplish the desired outcomes. Attention should also

be directed to the fact that, although the teachers were judged in personality traits to be slightly above the average, in teaching skill and technique they were judged to be slightly below the average. Three were rated as A, 25 as B, 70 as C, 38 as D, and 5 as E. Teacher-preparing institutions should accept this condition as a challenge and exert their efforts to equip students with perspective, subject matter, skill, and technique necessary for a well-prepared teacher. Furthermore, they should cooperate with superintendents and supervisors in a concerted effort to improve the quality of teaching done by those already in service.

#### HOME TEACHERS

Although no data were collected concerning the birthplace of the teachers, the survey staff were impressed with the relatively large percentage, as compared with other States, of the teachers who were teaching in their home districts. This condition may be partly responsible, considering the high educational qualifications required, for the comparatively low salaries paid in the districts. If such be the case, extra precautions should be taken to counteract the effect of low salaries in not attracting at least a small percentage of energetic, well-prepared teachers from outside the State each year. Although local residence teaching need not be a handicap to the elementary schools, there is usually present under such conditions a tendency to be content with local conditions and traditional methods of procedure. Each generation under such teaching will become more and more provincial and the State more and more isolated. The community or State employing largely home teachers must require higher standards of preparation if its educational achievements are to be comparable with those of communities securing teachers from more than one community, thereby profiting by the richer and more varied experiences of their teachers. In addition to rewarding and keeping the way open to teachers outside the community or State to enter the field, the dangers arising from such a "protected" profession may be mitigated by encouraging teachers to take some of their advanced professional training in institutions outside their local districts, to visit other school systems, and to utilize various types of extension teaching; and by furnishing stimulating and constructive supervision.

#### SUMMARY OF RECOMMENDATIONS

1. The State should seek to preserve the present wholesome attitude toward teaching as a profession which apparently is responsible for the large number of young people who are choosing it as a life career.



2. An increase in the present relatively high percentage of men teachers in the elementary schools should be encouraged; professional standards, however, must be maintained in accomplishing this end.

3. The average class size may be increased, thereby releasing the less efficient teachers and making available the funds thus saved to reward higher professional preparation among the teachers retained.

4. The present minimum standard for teachers of two years' professional preparation beyond high-school graduation should be strictly enforced; furthermore, the curricula during these two years should include more definitely professionalized subject-matter courses. Teachers of long experience falling short of these minimum standards should be required to meet them by the completion of a definitely specified unit of professional training each year.

5. Regardless of the amount and kind of preservice training, teachers should regularly avail themselves of at least one, preferably more, of the many agencies for in-service training. Such should include summer school attendance, or the equivalent, at least once every five years.

6. Longer tenure, making for greater stability, should be encouraged by means of adequate salaries, desirable living and working conditions, and an appreciation of efficient service.

7. A salary schedule adaptable to the varying needs of different sections of the State should be prepared. Bases for its construction should include such factors as professional improvement, experience, and teaching efficiency, special provision being made for "peripheral" teachers.

8. The apparent lack of adequate teaching skill and technique displayed by the teachers should be given the serious attention of supervisors, superintendents, and teacher-preparing institutions, all of whom should assume responsibility and make a concerted effort toward their improvement.

9. The evil effects likely to arise from a "protected" teaching profession should be counteracted by attracting a small percentage of teachers from outside the State, by encouraging teachers to take their advanced professional training outside their local districts, by utilizing various types of extension teaching, and by other similar methods.

10. The proposed research division in the State department of public instruction, in cooperation with the graduate departments in education of the higher institutions, should collect and interpret data and information concerning different aspects of the teaching situation in the State.

## Chapter IX

### ADULT EDUCATION

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Until very recently only a few people had much leisure. Now, most people in our country have some leisure. Until comparatively recently it was taken for granted that education was only for the few, and had but little relationship to what one did, that it was related only to what some people thought. Now that education is a part of what everyone does and thinks it has purpose and meaning, in some degree, to all. Nor does the need for it stop with youth. Childhood will always be considered the best time to acquire the tools of education, but the truth is now dawning upon the world that all of life is needed for education. Education is adjustment to life, and one needs constant adjustment. More and more people are discovering that their greatest enjoyment comes from their continuous effort to understand their complex and wonderfully enlarged--and, indeed, ever-enlarging--environment. More and more people are discovering that their mental capacity, instead of growing less after maturity, increases with experience and use. Mental activity creates hunger. This mental hunger for opportunities and recognition is the most precious thing in modern civilization, as it is this that makes possible achievement and higher planes of living.

By adult education we do not mean something new or some new kind of cult. We mean only the development of our education that has in the past been mainly for youth and adolescence, for the whole population. It is merely another stage in the completion of the educational program that has already been started.

It is evident that this newer concept of education gives a new meaning to all education. It will no doubt have a tremendous influence on the education of young people, as well as of adults.

To educate all of the people always looks like a gigantic undertaking and might well cause alarm if it meant that this enlargement of the educational program had to be taken care of in educational institutions and largely at public expense. In the main the expense will be borne by the individual and the results achieved in the home, in the place of business, and wherever the individual may be.

That well-being and happiness are fostered by study is a growing belief evidenced by the astonishing increase in the number of those



who learn as they earn in all civilized countries of the world. "To-day, there are at least five times as many adults, men and women, pursuing some form of educational study as are registered as candidates for degrees in all the colleges and universities in the country." Adult education has untold possibilities for the development and happiness of the race. It is a truism that the welfare of a State depends most of all upon the intelligence and integrity of its citizens.

The question about which we are most concerned is, "What is the proper function of the State in regard to this kind of education?" Has the State lived up to its full opportunities when it has provided the educational machinery known as the elementary school, the secondary school, and the institutions of higher learning?

The common justification for State support of education is that it is a protection to the State. What justification can there be for teaching a child of 9 to read at public expense and denying the same opportunity to a citizen of 21? If the purpose is the protection of the State then there is even more urgent need for teaching the voter of 21 than there is for teaching the child of 9. While it is doubtful that anyone would question the responsibility of the State to provide elementary education for all its citizens and even for its prospective citizens, it is an open question as to how far the State should go in aiding local districts to provide higher educational opportunities for adults. Nearly every State in the Union does provide practically free education to those who attend its institutions of higher learning without regard to age. Why should not the same opportunities be given to individuals who can not go to its institutions?

The main instruments a State has for the promotion of the education of its grown-ups are libraries, university extension service, and evening schools.

The State of Utah during its history has shown commendable progress in the development of educational opportunities for her young people and has laid well the foundation for a successful program for the education of all her people. Her future in this regard is bright with opportunities.

In this section of the survey report will be found a consideration of the following: Libraries, extension education, night schools (includes illiteracy and Americanization), penal institutions, civilian rehabilitation (includes the school for the blind), part-time education, care of the feeble-minded, the Woman's Civic Center Association.

#### LIBRARIES

There probably has been no branch of public service that has grown more rapidly, in the past quarter of a century, than has the public library. This is partly due to the changed theory of library

<sup>1</sup> Frederick F. Keppel in *Yale Review*, April, 1920.

service. Formerly there was too much of the idea that the library was merely a collection of books, and the librarian the keeper of the books. To-day the idea is that the librarian is one who distributes books and makes the library the accepted center of a community's intellectual life. The public library, with capable librarians, may be made a most potent force in promoting all kinds of educational activity in a State. It supplements every form of education, whether public or private.

Any consideration of agencies that promote adult education would place the library at or near the top of the list. Charles Franklin Thwing, president emeritus of Western Reserve University, says:

There are five factors in our civilization, I suppose, the family, the church, the Government, the individual, and the book. The book is the mightiest representation of life that exists. It stands for all past life.

Libraries are no longer luxuries confined to the families and friends of the rich. They are no longer looked upon as a charity nor as a gift from the rich to the poor, but, like the public school and the public highway, they are for the use and benefit of everyone. In other words, libraries have become an element of sound public policy, and demand the same careful, intelligent, and interested official supervision and assistance as is given by the State to any other branch of its public economy.<sup>1</sup>

There is in Utah a State library, largely a law library, which is for State officials. The librarian is forbidden by law to let any but State officials, specified by law, remove books. The statutes permit cities of the first and second class to establish libraries when petitioned by voters to do so and to fix a levy not to exceed two-thirds of 1 mill on the dollar for cities of the first class and not to exceed 1 mill on the dollar for cities of the second class. The law also provides, that when properly petitioned, the city council or town board of trustees, in cities of the third class, may submit to the voters the question of establishing a library; or, if so petitioned, may submit to the voters the question of establishing a library and gymnasium. For the library there may be a tax not to exceed 2 mills on the dollar; for a library and gymnasium there may be a tax not to exceed 2½ mills on the dollar. The law provides that the city council, or the board of trustees, in an incorporated town, and the school board, or trustees, of a school district, in which such city or town is located, may cooperate in the establishment of a free public library and may contract between them as to the proportion that such city or town and school district shall pay toward the establishment and maintenance of such public library. The State law of Utah also provides that the county commissioners may levy annually a tax not to exceed 1 mill on the dollar on all taxable property

<sup>1</sup> Extract from address of George S. Godard, State Librarian of Connecticut, before National Association of State Librarians, Hot Springs, Ark., Apr. 25, 1923.



in the county, outside of cities exceeding 20,000 inhabitants, for the establishment and maintenance of county public libraries, when petitioned so to do by 10 per cent of the taxpayers of the county, said taxpayers to reside outside of cities exceeding 20,000 inhabitants.

There are in the State of Utah 50 tax-supported libraries. All but four counties, in March, 1926, had libraries supported by public taxation. Two other counties have what are called "voluntary libraries." The latter have received gifts of books and money and are open to the public but are not supported by public funds. According to the report for 1925 there were 136,454 borrowers registered in these libraries; 965,297 books for adults were taken out; and 49,724 books suitable for children were taken out, making a total circulation of 1,465,021 books for the year.

The State board of education has the power to appoint a secretary in charge of libraries and to fix his salary. At the time of the survey the secretary they had appointed was giving but one-third of his time to library work. The member of the survey staff who investigated this matter was much impressed with the service rendered by the library secretary, but thought that the demands of the State were such that at least one individual should give full time to this important work. It is true that the libraries of the university and the agricultural college are used to some extent by the general public, but these libraries are relatively small and should not be called upon to do the work of a general State library.

The survey staff thinks it is unfortunate that libraries and gymnasiums are linked together by law, as it is not in line with good policy. A voter should not be compelled to vote for or against both when he approves or disapproves of but one of them.

Utah is a large State and has sections that are but sparsely inhabited. This condition makes local libraries in many localities impracticable. Good library service for rural as well as urban dwellers makes for contentment and progress. If the State library were made a reference library and permitted to loan books to any responsible citizen who would pay the carrying charges, and would supplement resources of the local libraries, it would give a very much-needed service.

#### EXTENSION EDUCATION

If one were to write down the conditions under which grown men and women who have their regular work to do could best use their leisure time in self-improvement, he probably would have among the requirements: First, that the study should be pursued under careful guidance and capable leadership; second, that it should be

on a subject suited to the individual; third, that it should be carried on at such a time as the individual can give to it; fourth, that it should be given in the neighborhood of the home of the individual; and fifth, that in some cases it should be carried on in groups and in some cases by correspondence. If, after he has stated all these conditions, he were to read a leaflet explaining modern university or college extension, he would discover that he has actually described extension service.

Extension education is of universal application. It can be carried to the most remote places in the State. The plan of instruction is most flexible, as it can be made available to an individual as well as to a group. It is not a "seasonal job." School is never "out" in extension education.

Extension instruction is less expensive to the State than any other form of education because it can, in the main, be made self-supporting. In localities where classes are not sufficiently large to enable them to pay for the cost of the instructor, State aid is needed. The deficit created by small classes, however, may be offset in part by a surplus in localities where classes are large. If the extension department of an institution may organize classes only in those localities where they may be assured sufficient numbers to pay for the cost of instruction, its usefulness is greatly limited. The State should not fail to provide needed courses to small groups. There is a growing belief in the United States that the first two years of college work can be taken very successfully by extension methods at evening sessions. A relatively large number of young people who finish the local high schools can not go to higher institutions of learning. This fact offers a very fine opportunity to State colleges and universities to render a real service by extension methods. Students who earn even a few credits by extension work are very apt to go to college and continue their studies. To limit these opportunities to those localities that can pay the entire expense is manifestly unfair to those who, because of their small classes, are not able to cover the entire cost of the instruction. Surely the individual who is unfortunate enough to be compelled to earn while he learns is as worthy of State aid as that individual who is able to spend his entire time at the institution of learning. The extent of extension service should be governed by the felt need of the locality, and not by the size of the classes it is possible to organize.

From the standpoint of both the State and the individual the returns on extension instruction are the most immediately profitable of any type of education. Especially is this true for those cases, which are related to the occupation in which the individual is



employed; for example, courses in mathematics and drafting for the builder and architect, and courses in education and business for the up-grading of the individual.

In order to furnish an educational program equitable to all the people of the State, the extension program must be developed, not from a single institutional point of view, but in accordance with the needs of the State.

The modern State finds in extension service its most direct means of bringing systematic educational opportunities within the reach of all its citizens. The growth of extension education has been rapid since the University of Wisconsin demonstrated its ability to move the campus fence to the extreme boundaries of the State. Almost all State educational institutions now have extension departments that are, in some measure, meeting the demand in their States.

In Utah both the State university and the agricultural college give considerable work by extension methods. The university offers, through extension, practically all of the work given to resident students in the following general fields: Business; education; natural science; English; political science; physical welfare; physical education; philosophy; physics; psychology; sociology; history; zoology; research; and investigation. In addition these subjects high-school courses are given in mathematics, civics, history, biology, and English.

The purpose and scope of the extension work of the University of Utah is revealed by the following extract from a recent publication:

Instruction by extension as developed in the university is more than an extension of residence courses of study beyond the regular class groups. It is the adaption of the strength and organization of the university as a teaching plant to the needs and conditions of persons who can not invest their chief time in study. The courses are of two kinds, those meeting the requirements of the university faculty as to amount and quality of work for credit and therefore carrying credit toward various university degrees, and those not meeting these requirements and therefore carrying no credit. One-half the work required for a bachelor's degree may be earned by extension. Courses are conducted by both class and home study methods. Courses by the class methods are organized wherever a sufficient number of persons make request for them.

In order that we may have an idea of the amount of money the various States are expending for extension service the following table, taken from the annual report of the University of Colorado extension division for 1925, is given:

TABLE 1.—Comparative ranking of extension divisions by institutional appropriations for extension work

Institution	Institutional appropriation for extension work, 1923-24	Total income of institutions from State for current expenses, 1922-23	Extension appropriation, per cent of total
1. Wisconsin	\$222,500.00	\$2,491,375.00	9.4
2. Massachusetts	192,619.48	(1)	(1)
3. California	109,751.00	3,620,781.00	3.1
4. Oregon	90,000.00	659,181.00	13.7
5. Texas	76,500.00	1,330,616.00	5.8
6. Indiana	61,655.00	1,153,751.00	5.3
7. Iowa University	60,000.00	1,727,972.00	3.5
8. Washington University (St. Louis)	56,795.00	(2)	(2)
9. North Carolina	53,225.00	480,000.00	11.8
10. Oklahoma	50,000.00	682,936.00	7.3
11. Kansas	48,515.00	1,064,540.00	4.6
12. Minnesota	45,100.00	2,719,499.00	1.7
13. Michigan	40,000.00	3,000,000.00	1.3
14. Iowa State College	35,000.00	1,458,000.00	2.4
15. Colorado	33,950.00	702,000.00	4.8
16. Missouri	30,000.00	916,433.00	3.3
17. Florida	30,000.00	173,123.00	17.3
18. South Carolina	19,850.00	116,519.00	19.8
19. Arkansas	16,535.75	310,589.00	5.3
20. Virginia	15,179.65	252,487.00	6.2
21. North Dakota	14,800.00	478,200.00	4.1
22. Harvard University	14,507.12	(2)	(2)
23. Kentucky	12,000.00	432,406.00	2.8
24. Nebraska	10,000.00	1,885,600.00	.5
25. Alabama	7,500.00	142,085.00	5.3
26. Utah	7,000.00	331,959.00	2.1
27. West Virginia	5,000.00	645,000.00	.7
28. Arizona	4,018.59	403,562.00	1.0
29. South Dakota	3,500.00	294,500.00	1.2
30. State College of Washington	2,400.00	525,364.00	.4
31. Chicago	(2)	(2)	(1)
32. New York University	(2)	(2)	(1)

1 Organized under the State department of education.

2 Private institution.

It will be seen from the above that 19 of the 27 State universities given in the table have a larger percentage of State support for extension purposes than has Utah State University.

The following table, taken from the same report, shows the institutions listed according to the percentage of total income received from student fees:

TABLE 2.—Comparative rank of extension divisions in accordance with relation that student fees bear to total budget

Institution	Receipts, per cent	Institution	Receipts, per cent
1. Washington (St. Louis)	118.1	17. North Carolina	37.9
2. Alabama	106.7	18. Massachusetts	34.5
3. Chicago	100.0	19. Missouri	33.3
4. Utah	97.0	20. Arizona	32.8
5. State College of Washington	90.7	21. Harvard	31.3
6. Minnesota	80.0	22. Michigan	31.1
7. New York University	78.9	23. South Dakota	30.0
8. Nebraska	66.9	24. Texas	26.2
9. Kansas	63.1	25. North Dakota	25.2
10. California	63.0	26. Oregon	24.6
11. Indiana	52.8	27. Arkansas	23.0
12. West Virginia	50.0	28. Florida	21.5
13. Wisconsin	49.7	29. Virginia	20.4
14. Oklahoma	49.6	30. Iowa State College	17.7
15. Kentucky	49.3	31. Iowa	13.2
16. Colorado	38.1	32. South Carolina	(1)

1 No receipts.



TABLE 3.—*Receipts and disbursements of the University of Utah for extension purposes*

	1922-23	1923-24	Total
<b>Receipts:</b>			
Credit balance June 30, 1922.....	\$5,062.12		\$5,062.12
State appropriation.....		\$14,000.00	14,000.00
Miscellaneous receipts.....	5.12		5.12
Extension class fees.....	12,551.00	1,021.60	27,572.60
Correspondence fees.....	6,054.50	6,285.29	12,339.79
Scout Pow Wow.....	717.50	260.50	978.00
	24,390.24	35,567.39	59,957.63
<b>Disbursements:</b>			
Salaries.....	19,489.82	19,984.00	39,473.82
Supplies.....	5,846.34	4,619.46	9,465.80
Pow Wow.....	750.56	760.70	1,511.26
	25,486.72	25,364.16	50,850.88
Total receipts.....			\$59,957.63
Total disbursements.....			50,850.88
			9,106.75
Less 1924-25 appropriation drawn ahead.....			7,000.00
Credit balance forwarded 1924-25.....			2,106.75

From Table 2 we see that in Utah the students pay \$97 out of each \$100 used for extension purposes. We see also that only one State institution exacts from the student as high a per cent of the total expense for instruction as does Utah, and in that State students in the field are paying more than the cost of the instruction. In other words, the Alabama student who can not afford to go to college but gets what he can by extension methods pays in part for the education of those who attend the institution.

We note also from Table 2 that the educational institutions that are leading in extension work receive a much larger per cent of their total expenditures from the State, and a much smaller per cent from student fees, than does the University of Utah.

While the extension department of the University of Utah is wholly dependent upon appropriations from the State and fees collected from students, the extension department of the agricultural college is more fortunate in that it has three sources of income. The Federal Government provides funds to supplement the States' funds used for this work. In addition the college has, of course, the fees collected from students.

The work the agricultural college can do with joint Federal and State money is more or less well defined by law and by ruling of the Department of Agriculture.

The general problem of each extension agent outlined in the Smith-Lever Act is:

That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities.

and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges receiving the benefits of this act.

### A recent college bulletin says:

The particular problem of each agent is determined annually by consultation and meetings with the local people and with the college specialists. The problems selected are called projects, and the total projects from all the communities of a county constitute the extension agents' program of work for the year.

The community is the basic unit of organization for extension work. The agent goes to the community with a suggestive program for the improvement of home conditions and farm practices in that community. After conference with individuals, with leaders of the various community organizations, a community program is developed for presentation at a mass meeting. When the program has been approved by the people, local leaders are selected to direct each line of work. The agent then works in cooperation with these leaders in giving demonstrations, holding meetings, conducting tours or in any other method of getting people to adopt the improved practices connected with that particular project.

In counties which do not have agents, general and project meetings are held each year and work is left for the people to complete.

A brief summary of the 1925 work shows that work was done in every county of the State. There were 3,504 meetings held with a total of 143,185 in attendance. Organized project work was conducted in 193 communities. There were 3,073 project leaders who assisted with the extension program. As a result of extension work improved practices involving all phases of home and farm work were adopted in 11,425 homes and on 12,711 farms.

The extension work of the college in 1924-25 included the following courses: Accounting, art, agronomy, animal husbandry, business administration, dairy, economics, education, English, entomology, French, zoology, history, horticulture, irrigation and drainage, marketing, mathematics, mechanical drawing, political science, public health, poultry, sanitation, sociology, stenography and typewriting, woodwork, physics.

The college also gives work by correspondence. A recent catalogue gives the following:

#### FOR WHOM INTENDED

1. Correspondence-study courses are organized for—
1. Students preparing for college or for professional schools.
2. College students who, for any reason, are unable to do continued residence work.
3. Teachers so circumstanced that they can not do work in residence, either in the summer school or during the regular school year, and yet desire to secure a life certificate or to continue some advance work.
4. Professional or business men who wish to broaden their culture.
5. Men and women who feel that they are too old to go to school, yet who need greater knowledge in their daily work.



6. That great class of people whose time is so taken up that they can not leave home, yet whose faces are turned toward the great intellectual advancement of the age.

#### ADMISSION

All students who have graduated from high school may register for courses of college grade and those who have completed the work of the grade schools may enter upon a high-school course, or take such of the practical courses as their preparation will justify.

Any person 19 years or over, not having graduated from high school, may register for such courses of college grade as he is prepared to carry efficiently. Such students, however, must satisfy the requirements of the college before entering as residence students.

In addition to the extension work done by the university and the agricultural college, the State department of education is doing extension work in the field of home economics with joint State and Federal money. There is already some slight duplication in extension work done by the home economics departments of the university, the agricultural college, and the State department of education. Also there is a lack of uniformity between the university and the agricultural college as to the amount of work that nonresident students may do for credit. The university grants by extension methods one-half of the credits necessary for a bachelor's degree, while at the college one-fourth only may be so earned. Competition between extension departments of the university and the agricultural college has, at times, in some localities, been too keen to be constructive. It has resulted in duplication in some places and neglect in others. Unified control is urgently needed if this most important work is to be promoted so as to be of greatest service to the State.

The chapter on higher education in this survey report makes definite recommendations as to how to secure unified control in extension work.

#### AMERICANIZATION

The legislature of 1919 passed a law requiring all aliens between the ages of 16 and 35 who had not a reading, speaking, and writing knowledge of the English language equal to that required for the completion of the fifth grade in the public schools of the State to attend school for at least four hours each week that special Americanization classes were in session. The legislature appropriated \$20,000 for the purpose of aiding the various districts to defray the expense of such schools.

Provision was made for an Americanization officer in the office of the superintendent of public instruction.

This law had a marked effect. Sixty-three classes were organized, in which 2,016 aliens were enrolled. Classes were started in all parts of the State where aliens were located.

Summer-school classes in the principal institutions of higher learning were held for the teachers of aliens. Had this law not been changed by the legislature in 1921, Utah would probably by this time have reduced greatly the number of her non-English-speaking aliens. The legislature of 1921 discontinued the appropriation and required each alien to pay \$10 toward defraying the expenses of his instruction. The position of Americanization officer was abolished, with the result that the law requiring aliens to attend school has fallen into general disuse, with the exception of the city of Ogden, where the law has been enforced successfully. The surveyor visited Americanization classes in Ogden and personally asked the members if they believed the law is a good one. Each member save two of the two classes signified that he or she was glad that the law was enforced. One man told the writer that he thought that the law was popular with the aliens who had attended classes, but was very unpopular with those who had not attended classes. This man, when asked if it was a hardship on him to pay the \$10, said that he thought it was only fair that he help pay the cost of running the school.

The last Federal census credits the State of Utah with having 32,010 aliens. Most of these are living in mining centers and in a few cities. Since they live with their fellow countrymen in groups, they do not, in many cases, see the necessity of learning the English language or American ways. This concentration of aliens should make a State program of Americanization easy on account of accessibility, but if the financing of the program is left to the several districts, this concentration throws too great a burden upon some districts.

State aid for the conduct of alien classes is in line with the practice of those States that have recent legislation on this subject. This is the case in all States that are carrying on active programs in alien education, such as Massachusetts, Pennsylvania, Connecticut, and New York.

#### ILLITERACY

Utah has been losing its leadership in the matter of literacy. In 1900 only two States, Nebraska and Kansas, had a smaller per cent of illiteracy than did Utah. In 1910 there were six States that had relatively fewer illiterates, and in 1920 there were eight States that were higher on the honor roll in this regard than Utah.

The 1920 census lists Utah as having 6,264 illiterates, or 1.9 per cent of its population over 10 years of age. This percentage of illiteracy, when compared with the 6 per cent of the entire country, is not large. It is evident to anyone making a study of the



question that Utah, with a very small colored population and a relatively small alien population, might well lead in the matter of literacy. Any State should take pride in its literacy leadership in proportion to the effort it has made to combat illiteracy.

There are two ways of combatting illiteracy—prevention, by teaching children; and cure, by teaching adults. Prevention here, as in combatting disease, is the more effective. Utah is doing exceptionally well in securing a high percentage of school attendance. Yet there are homes with children beyond the reach of schools. How to reach these scattered children is a real problem. It may be that the best solution is to have itinerant teachers call at these homes and, as nearly as possible, keep them up to grade by using the help of parents and leaflets. If this is done, children can be so instructed that they will continue their desire to go to school when the opportunity does come to them. It is a pathetic fact that most children who have reached the age of 10 without having been taught to read resist being sent to school after that time.

Salt Lake City has fewer illiterates than any other city of its class with the exception of Spokane, Wash. Salt Lake City, in 1920, had 970 illiterates, or 1 per cent; Spokane had but 0.9 per cent. It would seem that Salt Lake City might easily teach the small number of its illiterates and thus lead all other cities of her class in the matter of literacy.

It should be kept in mind that the census records as illiterate only those who can not write in any language. If a person can write his name he is classified as literate. The United States Army, by testing over one and a half million men, discovered that 25.3 per cent could not read well enough to get the meaning from a printed page. All adults who have not a reading ability equal to that of a pupil in the fifth grade of the public school would profit greatly by instruction.

A nation-wide conference on adult education, held in Washington, D. C., in February, 1926, made the suggestions given below, which the survey staff recommends for the State of Utah:

1. That a State illiteracy commission be appointed to further elementary education among adults with the immediate aim to secure trained State leadership under the direction of the State department of education.
2. That State aid be provided for schools for adults on the same, or more liberal, basis as that given to the public schools. Where the problem is that of immigrant education the State and community should share equally the cost of instruction and supervision.
3. That the State department of education—
  - (a) Acquaint the public with the needs and purposes of the work.
  - (b) Conduct institutes for training teachers and leaders.

- (c) Lend assistance to communities in first stages of organization by suggesting methods of organization, of teaching, of advertising, and of securing assistance from cooperating agencies.
- (d) Suggest courses of study and standards of attainment.
- (e) Prepare and distribute helpful material.
- (f) Act as a clearing house between educational authorities and cooperating agencies.

4. That local school authorities:

- (a) Organize elementary schools for adults whenever and wherever there is need.
- (b) Appropriate or secure sufficient funds to employ the best teachers.
- (c) Furnish trained and sympathetic leadership.
- (d) Cooperate with State authorities in teacher training.
- (e) Secure teachers and organize classes in schools, factories, homes, and other places.
- (f) Seek to create, not only among the uneducated but the educated as well, a keen interest in the work.
- (g) In cooperation with other agencies, make the school organization a channel through which the best in American life may be taught.

The Census Bureau gives the following in regard to the number and per cent of illiterates in population 10 years of age and over in 1920 in Utah:

Number of illiterates, all classes (3,678 are males, 2,586 are females)	6,264
Percentage of illiteracy, all classes	1.9
Total number of native white illiterates, (native parentage)	535
Percentage of native white illiteracy (native parentage)	0.3
Total number of native white illiterates (foreign or mixed parentage)	390
Percentage of native white illiteracy (foreign or mixed parentage)	0.3
Total number of foreign-born white illiterates	3,504
Percentage of foreign-born white illiteracy	6.3
Total number of negro illiterates	59
Percentage of negro illiteracy	4.6

TABLE 4.—*Per cent illiterate in population 10 years of age and over*

Year	Percentage of illiteracy (all classes)	Percentage of native white illiteracy (native parentage)	Percentage of native white illiteracy (foreign or mixed parentage)	Percentage of foreign-born white illiteracy	Percentage of negro illiteracy
1900	3.1	1.1	0.6	6.1	6.3
1910	2.5	.4	.4	5.9	4.8
1920	1.9	.3	.3	6.3	4.6



TABLE 5.—*Number and per cent illiterate in population*

Population	All classes (1920)		Foreign-born white (1920)	
	Total number	Illiterate Number Per cent	Total number	Illiterate Number Per cent
<i>Salt Lake City</i>				
10 years of age and over	333,096	970 1.0	19,182	773 4.0
Male	46,101	482 1.0	9,604	382 4.0
Female	46,995	488 1.0	9,578	391 4.1
21 years and over	69,243	900 1.3	17,814	750 4.2
Male	34,647	448 1.3	8,947	374 4.2
Female	34,596	452 1.3	8,867	376 4.2
Both sexes				
10 to 14 years of age	11,323	28 .2	445	6 1.4
15 to 24 years of age	21,227	91 .4	1,757	51 2.9
25 to 34 years of age	20,476	185 .9	3,241	149 4.6
35 to 44 years of age	16,747	188 1.1	4,044	159 3.9
45 to 54 years of age	11,329	135 1.2	3,662	114 3.1
55 to 64 years of age	7,987	172 2.1	3,114	151 4.8
65 years and over	4,712	195 4.1	2,867	338 11.8
Male				
10 to 14 years of age	5,616	42 .7	220	3 1.4
15 to 24 years of age	9,941	54 .5	873	32 3.3
25 to 34 years of age	10,073	113 1.1	1,728	95 5.5
35 to 44 years of age	8,941	110 1.2	2,110	53 2.5
45 to 54 years of age	5,929	70 1.2	1,878	58 3.1
55 to 64 years of age	4,573	97 2.1	1,512	58 3.8
65 years and over	2,150	54 2.5	1,262	42 3.3
Female				
10 to 14 years of age	5,707	46 .8	225	7 3.1
15 to 24 years of age	11,286	37 .3	884	39 4.3
25 to 34 years of age	10,403	72 .7	1,513	51 3.4
35 to 44 years of age	8,106	78 .9	1,931	66 3.4
45 to 54 years of age	5,403	65 1.2	1,784	56 3.1
55 to 64 years of age	3,414	96 2.8	1,602	93 5.8
65 years and over	2,562	112 4.4	1,075	96 8.9
<i>Great Salt Lake</i>				
10 years of age and over	25,398	104 .4	4,717	194 4.1
Male	12,759	253 1.9	2,264	92 4.0
Female	12,639	170 1.3	2,453	102 4.1
21 years of age and over	18,252	372 2.0	4,159	188 4.5
Male	9,229	212 2.3	2,092	89 4.3
Female	9,023	160 1.8	2,067	99 4.8
<i>Urban population</i>				
19 years of age and over	166,396	2,168 1.3	51,909	1,531 2.9
Male	83,349	1,137 1.4	16,339	796 4.8
Female	83,047	1,031 1.2	35,569	735 2.1
21 years of age and over	119,724	2,015 1.7	29,785	1,492 5.0
Male	60,604	1,049 1.7	15,316	747 4.9
Female	59,120	966 1.6	14,469	745 5.1
<i>Rural population</i>				
10 years of age and over	165,164	1,096 .6	23,823	1,573 6.6
Male	88,946	2,541 2.9	14,157	1,287 9.1
Female	76,218	1,555 2.0	9,666	686 7.1
21 years of age and over	108,958	3,964 3.6	22,469	1,921 8.5
Male	60,271	2,293 3.8	13,175	1,262 9.6
Female	48,687	1,671 3.4	8,994	659 7.3

## PENAL INSTITUTIONS

It may be unusual to include the work of penal institutions in an educational survey. However, it is perfectly clear that the work of these institutions, in so far as they attempt to reform the inmates, must be educational in nature. Just as mental hospitals require the highest kind of medical skill to effect a cure, so penal institutions require the highest kind of educational skill to effect

a reform. In each kind of institution the inmates are out of adjustment with physical or social laws, as the case may be.

Ex-President Roosevelt said that the purpose of the prison is twofold—to protect society and to salvage men. The only way that society can be protected is by salvaging all prisoners who are to be returned to it.

Utah has two penal institutions: The State Industrial School at Ogden and the State Prison at Salt Lake City. Both were provided for in the constitution, and at the admission of the State each received from the National Government a grant of 100,000 acres of land. The biennial appropriation in 1925 for the former was \$131,000; for the latter, \$181,300.

#### THE STATE INDUSTRIAL SCHOOL

The purpose of the industrial school, as set forth in the Statutes of Utah, is "the confinement, discipline, education, employment, and reformation of juvenile offenders committed to it according to law." The law further provides:

The (governing) board shall cause the boys and girls under its charge to be instructed in correct principles of morality, and in such useful knowledge as shall be adapted to their age and capacity. Each inmate of the school shall, so far as practicable, be taught a trade or some useful occupation to fit him or her to earn a livelihood upon his or her release; and to carry out the provisions of this section there shall be established a manual-training department in the school.

The grounds, the plant, and the activities necessary for the regular upkeep and conduct of the school offer great possibilities for aiding the students, some 125 boys and 35 girls, in the way that the framers of the law had in mind. The grounds are ample and well kept; the buildings are commodious, pleasing in design, and in good repair. For teaching trades or useful occupations there are a fairly well-equipped print shop, little used because there is small demand for its product; a shoe-repairing shop where the students' shoes are kept in repair; a blacksmith shop in which to care for the farm implements; and the bakery which makes the bread for the institution. In addition a brick mason is employed, and he, with the help of the boys, attends to the plant, and has even erected some small new buildings. There is a good farm, a select herd of Holstein cattle, and several pens of thoroughbred white Leghorn chickens.

The name of the institution, its general material equipment, and the terms of the law all clearly imply that the young people committed to its care are to be trained for industrial pursuits; that they are not to be simply day laborers for the State. Necessarily a considerable part of their time will be devoted to acquiring the manual skills needed in their particular vocations, and while doing so they may, purely as a secondary consideration, produce something that



will help in the maintenance of the institution. But it should not be lost sight of that training human beings, not producing commodities, is the purpose of the industrial school, and that in addition to the manual skills the academic subjects related to and necessary for them must be taught well and carefully.

The members of the survey staff feel that the educational side of these young peoples' activities is to a considerable degree neglected; that they are forced to be producers rather than learners and that their training in the related subjects is too small in amount and not properly coordinated with their work in shop and field. One of the reasons for these things is that the staff of the school is a producing body rather than the instructional one that it should be. Of the 30 persons employed, 11 have duties of a specialized industrial nature. They are, a printer at a salary of \$111 a month; a blacksmith, a chief, a poultryman, a dairyman, a brick mason, an instructor in furniture making, a painter, and a boiler man, each at \$106 a month; a horticulturist at \$101; a farmer at \$100; and a shoemaker at \$81. It is evident that these employees have the point of view of overseers, rather than that of teachers. Besides the superintendent, five employees are indicated as having educational duties: A director of education and recreation, \$146; a director of athletics, \$106; a music instructor, \$40; and two school teachers, one at \$68 and the other at \$63. Board and living quarters are furnished free to every employee.

The two teachers have been selected from among the wives of men on the payroll of the institution. This may work out well in exceptional cases, but it is a thoroughly bad practice, because the superintendent is not free to judge instructors solely on their merits as instructors. There should be more teachers; they should be paid salaries commensurate with the duties of the position; and they should be selected from among persons trained for the special kind of work that must be done in such an institution.

In addition to the director of education and recreation there is but the one classroom teacher for the boys. The first classroom inspected had in it 40 boys ranging in age from 10 to 16 years and ranging in training and intellect from the first to the eighth grades. Some were evidently feeble-minded. The instructor was patient and sympathetic but was attempting the almost impossible task of holding their attention in a class exercise. More satisfactory progress can be made under a plan of individualized instruction.

There is no course of study for the institution and there was no apparent plan for coordinating the work of the schoolroom with that in the shops or on the farm. For example, at the time of the inspection the older boys were helping to build a chicken house. Deciding upon the type of house to build, drawing the plans, writing



the specifications, determining the amount and cost of the materials, and estimating the time and labor required for the building would have been a most valuable and interesting schoolroom project, especially for those boys who were taking special work in the raising and care of poultry. But the man in charge of the poultry did those things himself, and a splendid opportunity to give the kind of training generally recognized as best was lost. Girls in the bakeshop were performing repeatedly only one of the several steps in the process of bread making. They said that they had not been taught the entire process. In the girls' department also the teaching is made most difficult, and much of its effectiveness is lost because the pupils can not be graded easily, and there is lack of individual instruction.

The method of financial support for the school is to a considerable extent a cause of the faulty educational conditions existing there. A fixed amount to cover all the expenses of the institution is appropriated biennially as a part of the State budget. The board of management must not incur a deficit, even though the number of young people committed to the institution is greater than the number contemplated when the appropriation was made. Commitments are made by order of the local courts. The board's first obligation is to see that the children are fed and clothed and that the various employees are paid. After these necessary expenditures are made, the matter of education is considered and, with a small appropriation such as this institution is receiving, one may expect to find just the conditions that do exist, namely, that education is seriously neglected and that the children are, in effect, laborers rather than students.

Probably no member of the State legislature or of the board of management would sanction such a neglect of children. The remedy lies in making an appropriation of a minimum salary for each teacher and providing that enough teachers must be employed so that there shall not be more than a certain number of pupils—about 25 or 30—for each, and in requiring that the industrial subjects be taught by persons who have training as industrial teachers. When this is done, education, both industrial and academic, will take its proper place in the institution. If the legislature is unwilling to provide special funds for teachers of the academic subjects, those salaries may properly be paid from the State school funds, for these children are all of legal school age, and at least their academic education is a just charge against the school funds.

Both the boys and the girls at the school show a very fine spirit and willingness to try. An honor system of discipline has been organized among them and seems to be working out exceptionally well. The girls do excellent work in several lines. They are taught to sing and apparently join in the singing with much zest and pleasure.



There are many such indications of good central control on the part of the superintendent. The most economical thing the State can do for these children is to give them such careful, well-planned, and ably executed training as will fit them mentally, morally, and physically for citizenship.

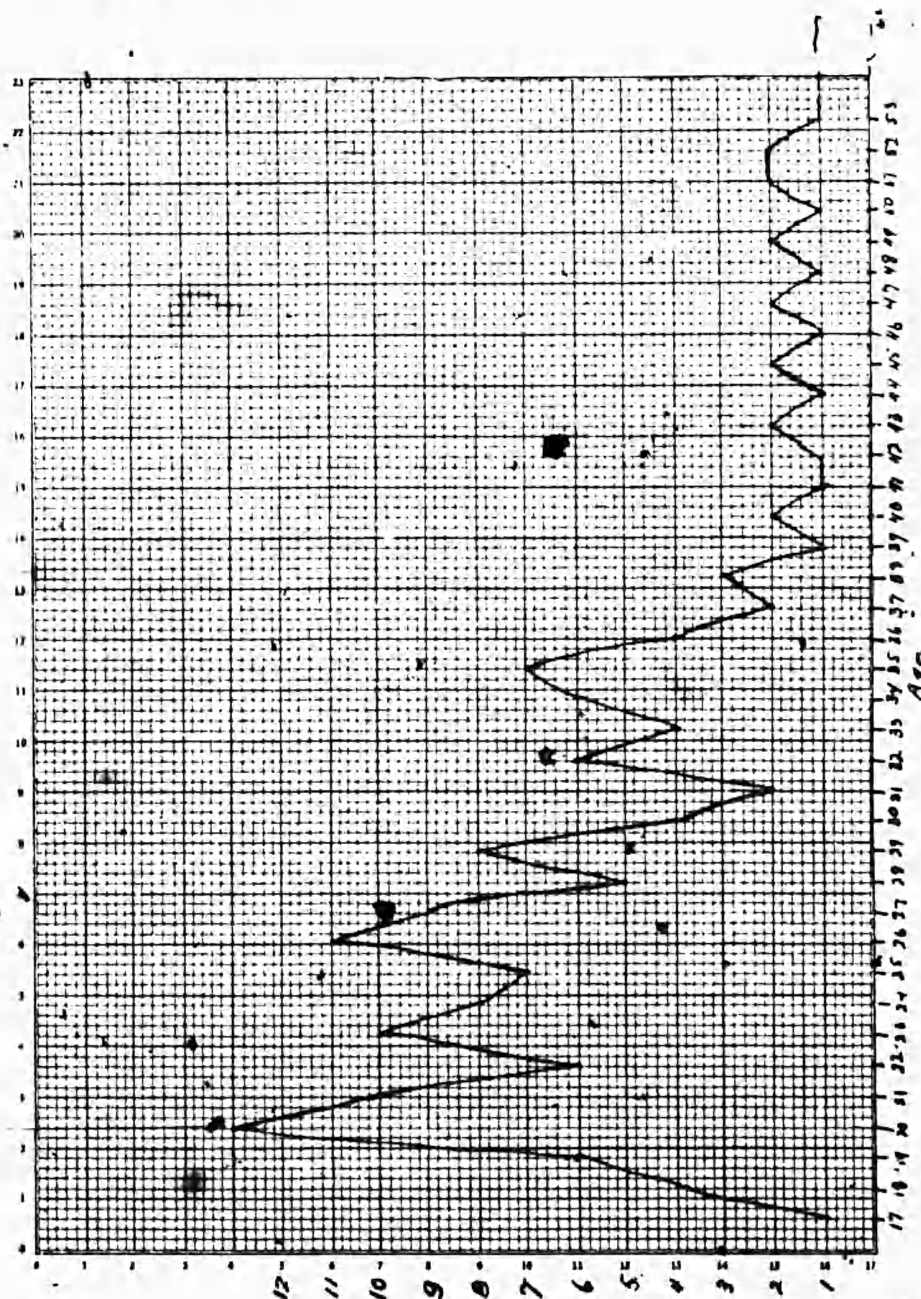


FIG. 26. — Age distribution of inmates of Utah State prison

#### THE STATE PRISON

The purpose of the State prison is declared to be "for the confinement of persons lawfully sentenced thereto."

The average daily population rarely exceeds 300. At the time of the survey fewer than 200 persons were in confinement. The main characteristics of the group as determined from the official records

and by questionnaire are that they are predominantly young men in the formative, productive age, uneducated, unskilled in any trade or occupation, and desirous of an opportunity to improve themselves.

The age range, from 17 to 65, and the age distribution are shown in Figure 26, page 364. Of 158 persons, 126 are 35 years of age or less. Only 20 have passed the fortieth anniversary, and 64, or 40 per cent of the entire number, are between the ages of 17 and 25, inclusive.

Of the 166 men 19 have had no schooling whatever, 23 have had four years or less, 85 claim to have attended school between four and eight years, and 38 have done some high-school work. Only 6 claim four years of high school and 2 claim some college training. Briefly, 76 per cent are of eighth-grade standing or less, generally less, although all but one have reached the age when they could be expected to have finished high school.

TABLE 6. *Utah surren. Prisoners' Education*

Age	Number	Education								College
		None	4 years or less	4-8 years	High school					
					1 year	2 years	3 years	4 years		
	2	3	4	5	6	7	8	9	10	
Total	166	19	23	84	15	14	5	4	2	
17	2			1			1			
18	4			3			1			
19	7	1	1	4	1					
20	10		1	6			2	1		
21	12			5	3		3	1		
22	6	1		4			1			
23	10	2	1	6			1			
24	9	1	1	4	2			1		
25	7		1	2	1		1	1		
26	11		2	5	1		2		1	
27	9	1		5			2		1 (2 yrs.)	
28	5	1		3	1					
29	8		2	5				1		
30	5	1	2	2						
31	2		1		1					
32	6	1		4	1					
33	4			1						
34	6		4	2						
35	7	1	1	4	1					
36	4	1	2		1					
37	2	1		1						
38	3			2	1					
39	1	1								
40	2			2	1					
41	1			1						
42	2			2						
43	2			1			1			
44	1		1							
45	3	2		1						
46	1	1								
47	2	1	1							
48	1			1						
49	2			1					1 (4 yrs.)	
50	1	1								
51	2		1					1		
52	2			2						
53	1		1							
54	1	1								
55	1			1						
Blank	1			1						



TABLE 7.—Utah survey: Prisoners—Previous occupations

Trade or occupation followed	Number	By age groups							
		15-20	21-25	26-30	31-35	36-40	41-45	46-50	51-65
1	2	3	4	5	6	7	8	9	10
Total	166	23	41	38	25	12	9	7	8
None	43	7	16	7	4	5	2		2
Auto mechanic	11	2	5	3	1				
Miner	15	1	1	8	1	1	1	1	1
Mechanical engineer	2	1	1						
Fireman	5	2	1	1	1				
Farmer	17	2	4	4	2		1	1	3
Stockman	2	1			1				
Carpenter	4	3	1			(1)			
Painter	3	(1)	1	1	1				
Foundryman	2	1			1				
Baker	2	1			(1)	1			
Shoemaker	1	1							
Salesman	4	1	1		2				
Iron and steel worker	5		5						
Bookkeeper	1		1						
Accountant	1							1	
Clerk	2		2						
Waiter	4		1	1	1		1		
Electrician	2		1	1					
Rigger	1		1						
Printer	7		2	1	1	2			1
Telegraph	1			1					
Street car	1			1					
Mechanic	4			2	1		1		
Decorator	2			2					
Cook	6			1	3			2	
Musician	(1)			(1)					
Motion picture	1			1					
Barber	3			1	2				
Laboratory worker	1			1					
Hod carrier	1				1				
Mail clerk	1				1				
Locksmith	2				1	1			
Lineman	2			1					
Civil engineer	1					1			
Merchant	3						1	2	
Stone worker	1						1		
Sheet metal	1						1		
Tailor	(1)								(1)
Boilermaker	1								1

<sup>1</sup> Had also another occupation.

TABLE 8.—Utah survey: Prisoners—Subjects wanted

Subjects wanted	Number	By age groups							
		15-20	21-25	26-30	31-35	36-40	41-45	46-50	51-65
1	2	3	4	5	6	7	8	9	10
Total	379	60	108	86	54	22	20	11	16
Reading	33	4	8	6	6	1	4	2	2
Writing	43	6	9	9	7	4	3	2	3
Arithmetic	35	6	8	7	5	2	3	1	3
Penmanship	22	7	8	3	3		1		
Spanish	25	7	8	7		1	1		1
English	42	5	9	10	8	4	3	3	
History	5		3	1			1		
Bookkeeping	11	1	6	2		1			1
Typewriting	13		5	3	3	1			1
Radio	14	4	3	4	2			1	
Welding	17	4	3	3	2	4			1
Auto mechanic	35	5	10	10	4	1	1	1	3

TABLE 8.—*Utah survey: Prisoners—Subjects wanted—Continued*

Subjects wanted	Number	By age groups								
		15-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	
	2	3	4	5	6	7	8	9	10	
Woodwork	4	3	1	2						
Music	31	3	14	7	1	1		1		
Architecture		1	2							
Agriculture	7	1	1		2					
Electricity	21	4	7	4	5	1				
Aviation	3	1		1						
Interior decorator	3		1	1	1					
Ironwork	2		1		1					
Crimes	1		1	1		1				
Stenography	1			1						
Chemistry	1			1						
Psychology				1						
Drafting	1			1						
Cooking	2			1	1					
Bookkeeping								1		
Salesmanship								1		
Etching	1								1	

The previous occupations of the prisoners are listed in Table 7. Over one-fourth—43—of the 166 men had no occupation at all when sent to prison, and 34 of the 43 are between the ages of 21 and 45, when they should certainly be gainfully employed. The small number that had followed any skilled technical pursuit is noticeable; a civil engineer, an accountant, two mechanical engineers, and one musician complete the list. The occupations most frequently reported by the prisoners are three: Farmer, miner, and auto mechanic, in the order given. How skilled the men were in these is not known, but the very small number that had completed a high-school education leads to the belief that few, if any, of them have had organized instruction in the callings by which they were attempting to earn a livelihood.

All but two of the men expressed a desire to study and to be taught. Their subject preferences by age groups are given in Table 8. Plainly they feel the need of the tool subjects, for reading, writing, arithmetic, and English are among those for which there is most frequent call, even by the men over 40 years of age. There are almost equally strong demands for auto mechanics, music, Spanish, and electricity. Next in order are welding, radio, type-writing, and bookkeeping. Only five desire to be trained in agriculture and four in woodwork.

In due time practically all of the men now in the State prison will be returned to society. One or two will succumb to disease during their terms; one or two may be executed. The proportion permanently withdrawn will be negligible. The others will be released either by termination of sentence, pardon, or parole. Whether they become productive citizens or enter again upon careers of law-



breaking will depend to a considerable degree on their treatment while in prison.

The evident purpose of a State prison is to protect society. To attain this the authorities concerned with the Utah State prison maintain fine discipline within its walls, have an enviable record as to escapes, grant few pardons, and are generally free from the weak sentimentality that sometimes characterizes prison management. Medical and surgical cases are treated "with special attention to those which have a direct bearing on the mental attitude of the patients to society." However, the major means of helping to protect society is overlooked, in that little attempt is made to fit the men to earn a competent living after their release. They are sent back into the world uneducated, unskilled, and unprepared to gain a livelihood by fair means.

Experience has shown and penologists are generally agreed that a man who has been trained for some useful vocation is not likely to commit acts of violence or to be otherwise unsocial. They also agree that a man whose mind and body have been kept busy while he is in prison is better fitted to lead and will be more desirous of leading a normal life after his release than one who has been idle during his term.

Both the survey staff and the warden of the prison believe the most urgent present needs of the institution to be segregation, occupation, and education. The main inclosure is small and the quarters so cramped that it is difficult, if not impossible, to keep the young offenders from contact with the older ones. The State law requires that the men shall work eight hours a day, Sundays and holidays excepted, but the opportunities for keeping them at work are meager. The farm is small and the variety of other kinds of employment limited. An overall factory installed in 1924 was not in operation at the time of the survey. The statutes permit the maintaining of a school, but there are no funds with which to carry on an educational program.

Recommendations as to the ways and means for providing proper segregation and occupation are not strictly within the field of this report. They must be arranged for, however, if any scheme of educating the men is to work to the best advantage.

The biennial appropriation should include an amount sufficient to provide an adequate teaching staff and to purchase text material and other aids to instruction. One of the chief members of the teaching corps should be a man versed in vocational guidance who will give his full time to a study of the prisoners and to supervising their training. He should be paid fully as well as are the professors in the State institutions of higher learning. He should

be versed in penology and criminology, as well as in vocational guidance and vocational education. He should be given time to make a careful study of the inmates in order to determine the trades and callings in which they will have the best chances of success after being released from prison. He should be given such help as will enable him to maintain an active placement bureau and to supervise and advise the men for some time after they have returned to society and are beginning to make practical use of their training. The number and duties of the other members of the teaching corps will depend largely on the findings of the vocational adviser. In Utah, according to law, the warden holds office during the pleasure of the board of corrections, and he must possess the ability and qualifications necessary to carry on successfully the industries of the prison and must have the executive ability essential to the proper management of the officers and employees under his jurisdiction and to the enforcement and maintenance of proper discipline in every department.

The work of a prison warden is thoroughly professional in its nature, requires a high degree of skill, and needs a background of successful experience. The position should be given the dignity it deserves by removing it from all partisan political influence and attaching to it an adequate salary. A definite tenure of office should be fixed, a tenure long enough to enable the present warden or his successor to enter upon and carry out a consistent program extending over a number of years. Until public sentiment has been created to the extent that it will permit the appointment of none but highly trained, successful men to the position it may be well to write into the law specific qualifications for the appointee.

In this process of raising the level of prison management and of establishing systems of prison education Utah may well take the lead.

#### CIVILIAN REHABILITATION

On June 2, 1920, the President of the United States approved the national civilian rehabilitation act. On February 23, 1921, the Legislature of Utah passed a law making the act effective in Utah and providing for its administration, thereby creating a joint Federal and State fund to train disabled persons and, if possible, return them to some form of remunerative service. The act covers every class of disability, whether congenital or caused by accident or disease, provided the disabled person may be reasonably expected to be self-supporting after training. The joint fund provided by the Federal Government and the State may be used only for tuition, training expenses, and industrial supplies. It is not available for physical restoration or for maintenance while in training.



## AMOUNT OF WORK ACCOMPLISHED

The number, by years, of cases rehabilitated is as follows: For the fiscal year ending June, 1921—1; June, 1922—1; June, 1923—39; June, 1924—33; June, 1925—35.

Information obtainable June 19, 1926, shows that there will be approximately 32 cases rehabilitated for the fiscal year ending June, 1926. This would make a total of 109 cases rehabilitated in Utah.

The "live roll" (those cases in some stage of rehabilitation under State control) on June 19, 1926, shows: Eligible cases, 12; in process of rehabilitation, 21; in school training, 19; in employment training, 12; being followed up, 6; total, 70.

## TRAINING COSTS

The training costs per case in Utah, including administration, compared with the costs in other Western States is decidedly in favor of Utah. For example, for the year 1925 the cost per case for Utah was \$180.93; for California, \$319.87; for Idaho, \$301.39; for Montana, \$548.50; for Nevada, \$271.67; for New Mexico, \$611.80; for Wyoming, \$275.82.

However, there must be considered certain cost factors in such comparisons. For example, it costs less to give training in certain types of courses than in others. It costs less to give training in commercial work than it does to give institutional training in jewelry making or machine-shop practice. It also costs less to carry on a program of training concentrated in two or three centers than it does where the training work is widely scattered over a State. Utah offers training in a rather limited number of occupations and in only a few centers.

The State of Utah, as is quite generally the practice in other States, receives considerable contributions in the way of free tuition granted by training institutions, transportation expenses for trainees, and some cash donations. This speaks very highly for the benevolent public spirit of the Utah people and is a most commendable practice.

There is still considerable need for the expansion of the civilian rehabilitation program in order that opportunity for training may be made available to all those cases coming within the provisions of the law. Additional appropriation by the State would enable the administration to use more of the Federal funds available to the State. Information from the Federal administration is to the effect that for the year ending June, 1925, there was available to Utah a Federal appropriation of \$5,000, the expenditure of which was to be matched dollar for dollar by State money. The amount of State money expended was only \$3,174.66, thus limiting the expenditure of Federal money to a like amount.

As shown by the table below more than half the rehabilitation cases for Utah have had between 10 and 12 years of schooling, while for the United States the average is less than one-fourth. These data would warrant raising the question as to whether or not there are in Utah more disabled individuals having less than nine years of schooling who should be included in the civilian rehabilitation program.

*Distribution of percentages of civilian rehabilitation cases according to the amount of previous education*

[Data for year ending June, 1924]

	Un- known	None	1-3	4-6	7-9	10-12
Utah			15	12	15	58
Average for United States	10	4	6	19	38	23

On the basis of kind of disability, 15 per cent of Utah's cases are for total blindness and another 15 per cent for deafness, while the average for the United States is only 3.5 per cent in each case. On the other hand, only 18 per cent of Utah's cases are for loss of leg or legs, while the average for the United States is 42 per cent. These data are offered for the purpose of emphasizing the need for discovering and training all types of cases within the limits of the funds available.

#### ADDITIONAL PROVISION FOR SUPERVISION NEEDED

In October, 1925, following a suggestion of the State department of education, the census enumerators in the various school districts of the State collected information relative to handicapped people in their respective districts. This work was very successfully done. This survey makes it possible to offer immediate assistance to a number of urgent cases. It has already resulted in a considerable increase in the number of rehabilitation cases. This was a most commendable undertaking and one not usually practiced in other States.

At the present time the State supervisor of civilian rehabilitation is employed on only a two-thirds basis, one-third of his time being given to another line of work. The full time of at least one individual should be given to this work. Information is on file with the Federal Government which indicates that a more effective program of supervision is needed to insure the proper placement and stability of the trained individuals in remunerative employment.

#### THE SCHOOL FOR THE BLIND

The survey committee visited the workshops for the blind, conducted under the auspices of the State at 154 Regent Street, Salt Lake City.



The activities carried on in the shops include the making of various kinds of reed furniture; basketry work; loom work, including the weaving of both rag and yarn rugs; and the manufacture of many kinds of brushes and brooms. All of these manufacturing processes are carried on under the direction of one shopman, and the committee was much impressed by the variety and character of the work accomplished under his supervision.

There are, however, certain outstanding needs to which attention should be called. First, there is a shortage of funds to carry on the work as only \$5,000 is received from the State to cover a period of two years. Included in this is the director's salary. Any additional funds are to be derived from the profits received from the sale of the products of the shop. The funds appropriated to carry on this work should certainly be enlarged to the point where the program is assured.

Second, the workrooms are not suitable for the purpose. The amount of floor space for the variety of activities carried on is insufficient. The physical working conditions need improving so as to make the shops a more cheerful and a more healthful place in which to work.

Third, additional equipment and better equipment are seriously needed. The director in some instances is furnishing his own personal tools to carry on the work. For example, he is furnishing at his own personal expense a large metal tank for soaking the reed and a number of hardwood tools to be used in the manufacture of wooden parts for furniture and brushes. He also has installed in the shop a jig saw at his own expense. It is to be regretted that Utah as yet has not properly housed and equipped the school for its important work.

Fourth, better marketing facilities are imperative if the work is to continue and prosper. With the exception of the brooms, which are sold on a cooperative basis, there is no method of merchandizing the products of the shops except through the personal efforts of the shop director. At the present time the front of the workshop is used as a display room, but as the shop is located on a street but little frequented by people interested in buying such wares but few sales are made at the shop. Some better method of calling the attention of the buying public to the goods offered for sale should be formulated. In this connection it might be said that it is doubtful if it is necessary or even advisable to advertise the products as goods made by the blind. The quality of material and workmanship will guarantee their being placed on a competitive basis with goods manufactured in a commercial shop.

At the present time the school is overstocked with shop products, and unless some outlet is found for these goods the director stated

that it would be necessary to lay off some of the workers, as funds for the purchase of supplies and the payment of meager wages to the workers are to be had only from the sale of the shop products. If the products can not be sold, the work in most instances must be stopped.

Consideration should be given to a number of possibilities in formulating a plan for selling the shop products. For example, (1) the attention of potential buyers may be attracted by renting a room or a section of a room in some good business location where samples of the goods could be put on display, properly placarded, showing where they may be purchased; (2) arrangements might be made with retail firms to display and sell the goods on a percentage basis; (3) a contract might be made with some firm to buy the entire output of the shop; (4) some agents might be employed to canvass for sales. It is possible that some of the blind persons themselves might be trained for this work.

The unfortunate blind adult citizens of the State should be given every encouragement to become self-supporting individuals. Through proper vocational training they will become an asset to the State rather than a liability, and what is of still greater importance, they will be able to lead happy and independent lives as a result of their power to earn.

#### PART-TIME EDUCATION

Utah, as many other States have done, has enacted a law requiring part-time attendance of boys and girls who have dropped out of school. The school law of Utah requires at least 30 weeks' school attendance each year of all minors who have not been legally excused to enter employment. For any so excused the parent is charged with the responsibility of sending such minors to a part-time or continuation school for at least 144 hours per year. However, the parent may be excused from such duty by the district board of education for any of the following reasons:

1. That such minor has already completed the work of a senior high school.

2. That such minor is taught at home the required number of hours.

3. That such minor is in such physical or mental condition (which must be certified by a competent physician if required by the board) as to render such attendance inexpedient or impracticable.

4. That no such school is taught the requisite length of time within  $2\frac{1}{2}$  miles of the residence or the place of employment of the minor unless free transportation is provided.

The evidence of the existence of any of these reasons for non-attendance must be in each case sufficient to satisfy the superin-



tendent of the district in which the child resides; and the superintendent, upon the presentation of such evidence, shall issue a certificate stating that the holder is exempted from attendance during the time therein specified.

The provisions of the law as regards attendance are strictly enforced, at least in certain districts of the State. It is interesting to note the influence of the part-time school upon delinquency. For illustration, the deputy sheriff of Salt Lake County, speaking in reference to the part time law, said:

In my opinion conditions this year showed great improvement over last year or the last two or three years. Very rarely this year have we found any juveniles loafing in pool halls or on the streets. Not more than three juvenile arrests have been made this year, while last year not less than a dozen such arrests were made. In my judgment the enforcement of the school law has been a big factor in bringing about this improved condition.

The survey committee visited several schools conducting part-time classes. In each school visited there was much good work being done, but it was evident to the committee that there was not enough individualized work attempted. Some plan of individualized instruction should be developed whereby the needs of the individual will be more nearly met and his progress in accordance with his abilities assured. Forcing back into school work under group instruction methods, and largely in academic subjects, boys and girls who have attempted to sever their connection with this type of education program is not good practice. In fact, the true intent of the law can not be realized in the lives of the boys and girls until they are provided with courses planned to meet their needs in the economic and social groups which they have already entered.

Tests made in part-time schools in different parts of the country have shown that these schools enroll children of all grades of ability, some of the very brightest pupils as well as many with inferior intelligence. For the more ambitious students more home work should be assigned. The part-time school may thus be a place for testing the work done, for assigning lessons that may be worked out at home, or in connection with their employment jobs with whatever help is available, and for inspiring the pupil with a strong desire to work to his fullest capacity. With respect to the pupils of inferior intelligence the survey committee desires to discourage the practice of attempting to fit these pupils into the regular school without the services of a special teacher assigned to them.

The administration of the part-time law in the future should look forward to a fuller development along the lines of cooperative part-time classes. Especially is this true for the large industrial centers. With this end in view a cooperative study should be carried on with the industries for the purpose of acquainting them



with the values that they may derive from cooperating with the schools in organizing part-time cooperative courses for their apprentices. At the same time parents should be made acquainted with the values that such cooperative courses may have for their children. Assuming that it is a responsibility of the part-time school to give training in occupations, placement then is an essential coordinate function of the program. Placement in connection with the development of the part-time school in Utah needs especial consideration in order that the cost of training and the time of the part-time student may not be wasted through failure to find suitable and profitable employment in production enterprises.

The survey committee wishes most heartily to indorse the policy of the State vocational board in introducing the so-called cooperative idea as fast as it can be installed. The committee also desires to indorse the great care that is exercised in the selection of teachers to be recommended for these positions. Praise should also be given for the wisdom shown in using the teacher of part-time classes as the attendance officer in districts where this is possible, for in this way the teacher becomes acquainted with the home conditions of the pupils and is able, as a result of such knowledge, more nearly to fit the school to the needs of the pupils.

#### CARE OF THE FEEBLE-MINDED

About 1 per cent of any population, according to the best estimates, is of such mentality that it can not profit by ordinary public-school instruction or take proper care of itself after school age. Utah has in its school system no division organized to locate, enumerate, care for, and guard the interests of its subnormal and atypical children in an expert and competent way. It has no institution for the feeble-minded. Some of them are in the State mental hospital; others are in the industrial school; still others are in the public schools in various parts of the State. There are very few special classes for them, and those only in the large cities. For the most part their presence is determined by and they are taught—in so far as they can be taught—by teachers who have little or no training for this highly specialized kind of education, and who, in spite of their best and most well-meaning efforts, must make many mistakes.

This lack of organization makes even the scope of the problem indefinite in Utah. Using the estimate given above, the State has at least 1,300 children of school age whose mental endowment requires that they be given a very special kind of training in order that they and later their children may not become a burden on or even a menace to society. Probably the situation is not far different from that discovered in Connecticut in 1915. A census was taken there of the children in 95 towns, which included chiefly rural and village schools.



Out of a total enrollment of 26,000 the number of children reported as exceptional was 624. The distribution was: (a) Semideaf and semiblind, 75; (b) speech defective, 171; (c) very nervous, 83; (d) epileptic, 12; (e) mentally deficient, 221; (f) talented, 23; (g) otherwise atypical, 39. Of the total number 361 were of American parentage; boys were slightly more numerous than girls, and 496, or 80 per cent of all the exceptional children, were below the sixth grade in school. A survey made in New York State in 1924 of 595,206 children in cities, larger villages, and rural schools showed 5,012 to be mentally deficient.

Utah has the problem which Dr. Arnold Gesell, school psychologist for Connecticut, states so clearly in his manual, "What can the teacher do for the deficient child," when he says:

What are the social consequences of feeble-mindedness?

When feeble-mindedness is uncontrolled by society all sorts of vocational, economic, and moral problems arise. Many of our social problems are caused by the vocational inefficiency of the feeble-minded. Vocational inefficiency shows itself in so-called shiftlessness, unemployment, irregular employment, begging, vagrancy, pauperism. This does not, of course, mean to say that every pauper is feeble-minded. That would be a libel. But it does mean that feeble-mindedness is an important cause of pauperism and indigence. A large portion of those who drift into almshouses, particularly those who are not of advanced age, have failed in the struggle for economic existence because of the feebleness of their wits. They did not have the mental tenacity and good judgment to succeed from day to day, month to month, and year to year. For the same reason the feeble-minded earn subnormal wages at piecework, or are "handed around" from job to job without holding any position for a great length of time. Some become vagrants, ne'er-do-wells; many are wastrels, to use an English term. "Good-for-nothing," we often call them. As a matter of fact they are good for something, but only if we put them into suitable surroundings where their weak intelligence will not be overtaxed.

The foregoing failures we call economic failures. If the same individual fails along legal lines we call it crime, delinquency, or vice. Economic failure and moral failure are psychologically akin. They both may be an expression of mental weakness. It takes a reasonable amount of intelligence to recognize right and wrong, to keep definitely in mind the consequences of wrong and to shape conduct in accordance with the advantages of right. For this reason it has been said by high authority that every feeble-minded person is a potential criminal. As a matter of fact a remarkably large number of feeble-minded persons manage to keep out of jail; but a remarkably large proportion of those who do not, and who serve long sentences in reformatories and prisons, are mentally deficient. Easily one out of five of the inmates of penitentiaries is feeble-minded. Likewise many of the boys and girls who are committed to reform schools, particularly among those cases who can not be permanently reformed, are definitely deficient. When the impossibility of reform is due to mental deficiency we call the individual a *defective delinquent*. A fraction of the incorrigible or disciplinary cases among school children are defective delinquents.

Lack of intelligence may be at the basis of other forms of subnormal control, such as alcoholism and sexual immorality. Not all, but again a considerable percentage of inebriates and of prostitutes, are feeble-minded.



Is it any wonder that we have so many social problems directly due to mental deficiency? We can only rejoice in the good fortune of those cases where a happy combination of favorable circumstances allows the feeble-minded person to live a partially useful, or at least a harmless, life. We wish it were possible always to provide the external support which their mental frailty needs. Perhaps we some day shall be able to do so, if we begin near the bottom and cope with the problem as we find it in our public schools.

The State can not afford to deny its feeble-minded "the external support which their mental frailty needs" or to fail in doing its part toward working out both for itself and for the Nation the best possible answers to the many questions which arise about the proper care and handling of mental defectives. To that end it should by all means establish an institution for the care of the feeble-minded, man it with an expert staff, and make the whole an integral part of the public-school system.

#### THE WOMAN'S CIVIC CENTER ASSOCIATION

The Woman's Civic Center Association, in Salt Lake City is a woman's organization with a service point of view. It found that the need for its work did not stop with the close of the war. Its purpose is to give opportunities to women—all classes of women. Its leaders have discovered and developed talent capable and willing to do the varied and important work at hand.

The civic center acts as a coordinating agency of many efforts. It interprets women's interest in a very broad way. It attempts to stimulate women to take a proper interest in all city, county, State and national problems. It endeavors to guard women's rights. Among the subjects taught at the center, the following may be mentioned: Dressmaking, millinery, remodeling, flower making, dress forms, decorative stitching, designing, cooking, canning, catering, home nursing, parliamentary law, and project training.

The center maintains a milk fund and a community information bureau. It provides club headquarters for all sorts of organizations. It holds an art exhibit each month that attracts wide attention and seems to stimulate much art activity throughout the city and State.

The association is rendering a real service. Any wise administration of extension education for the State will use to its full capacity this organization and other such groups of workers that may from time to time be discovered.

#### SUMMARY OF RECOMMENDATIONS

1. That provision be made in the State for the education of adults as well as for the education of children.



2. That the State library be enlarged into a reference library to include a circulating department so as to supplement local libraries and to give library aid to localities and individuals now without adequate library service.

3. That the law pertaining to the establishment of libraries and gymnasiums be changed so that each will stand on its own merits.

4. That more State aid be given to the university for extension education.

5. That the control of extension work of the State university and the State agricultural college be unified.

6. That a State illiteracy commission be appointed.

7. That State support for elementary education for both aliens and native-born illiterates be provided.

8. That the present law pertaining to school attendance of aliens be enforced throughout the State or else repealed.

9. That the educational work of the State industrial school be greatly strengthened.

10. That the manual work done on the farm and in the shops of the State industrial school be better coordinated with the academic work.

11. That the conception of the function of the State prison be broadened to include education and reform, as opposed to the idea set forth in the State law; that is, for confinement of those committed thereto.

12. That funds be appropriated for providing trade-education courses for the State prison.

13. That the work of trade education be under the supervision of an expert in this field.

14. That the work of civilian rehabilitation be extended to include all types of disability and all disabled persons in the various parts of the State.

15. That the State assume more responsibility for providing training for its blind citizens.

16. That placement work in the part-time schools be emphasized.

17. That provision be made for more and better individual instruction in the part-time schools.

18. That a State institution for the feeble-minded be established.

19. That teachers especially trained for subnormal children be assigned to work with segregated groups of these children in the various school districts of the State.

20. That the State department of education continue to cooperate with the Women's Civic Center Association of Salt Lake City in connection with educational problems in which the association may be interested.

## Chapter X

### A BUILDING PROGRAM FOR UTAH SCHOOLS

By JULIAN E. BUTTERWORTH, Cornell University

#### BUILDING IN TERMS OF THE EDUCATIONAL PROGRAM

A school building must first of all protect the lives and safeguard the health of pupils. These requirements having been met, a school building should then be judged in terms of its fitness for and adequacy in housing the educational program provided through the school.

Utah, through its State department of education, has accepted the 6-3-3 organization in principle. This has been set forth in a recent State course of study. Table 1 shows the extent to which the three districts selected for study have thus far brought the various grades together so as to meet this program.

TABLE 1.—*Distribution of buildings as to grades included therein*

Grades included	Percentage of all school buildings in <sup>1</sup>		
	Alpine district	Box Elder district	Jordan district
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
1-6	17.4	6.8	25.0
1-8	65.2	77.2	55.0
1-9	0	4.6	10.0
7-9	0	6.8	0
7-12	0	2.3	5.0
8-12	0	2.3	0
9-12	17.4	0	5.0

<sup>1</sup>It should be noted that the percentage of pupils enrolled in these various buildings is quite different from the figures as here given for the distribution of the buildings themselves. For example, in Box Elder district only 31 per cent of the pupils are attending school in buildings in which the first eight grades are taught, while 18 per cent are attending buildings where only the first six grades are given.

It will be seen that so far as housing is concerned the 8-4 organization still prevails. Whatever other factors may be responsible for this situation, two clearly are involved: (1) Some of the isolated communities with small schools must still, because of difficulties in transportation, include as many grades as our American standards permit. Tradition has usually set this at eight. This tendency is especially noticeable in the western part of Box Elder County, which



borders the Salt Lake Desert. (2) Many buildings were constructed before the newer demands of the junior high school arose, and the discontinuance or even extensive remodeling of such buildings does not yet seem practicable. Present building facilities tend, therefore, to determine in part the school program.

As will be shown later, these districts have done well—in some buildings they have been almost lavish—in providing for some of the newer school activities, especially physical education, recreation, agriculture, shop, and home making.

#### PRESENT BUILDING FACILITIES

The three districts, Alpine, Jordan, and Box Elder, were selected for intensive study. Alpine district is in the northern part of Utah County and includes approximately half of that county. Jordan district is in the southern part of Salt Lake County and is one of four districts in that county, the others being Salt Lake City, Murray City, and Granite. Alpine and Jordan districts are in the fertile, well-developed Salt Lake valley. Box Elder district includes the entire county. It is a large county located in the extreme northwestern section of the State, covering an area approximately 80 by 100 miles. Its eastern part includes a well-developed agricultural area with several fair-sized villages and the city of Brigham, which has a population of about 6,000. About five-sixths of the county is sparsely settled, so that in this district are thirteen 1-room schools, an unusually large number for a Utah school district. These three districts may not be typical of the entire State. It would appear that Box Elder district is fairly typical, while Alpine and Jordan districts are above the average. However this may be, certain characteristic problems are found in these districts. They include more than 18 per cent of all pupils enrolled outside the five cities that constitute independent districts.

In evaluating present facilities the score-card method was used. This method has certain advantages over the collection of data regarding a few only of the important phases of a school building. (1) It insures the collection of detailed facts, since a score for any item, interpreted in terms of the standards, can not be given without them. (2) It bases the judgment of the building facilities upon *all* significant factors, not a few only. Unless checked one tends to judge a building by its general appearance. (3) It gives a convenient method for recording the judged value of the building far superior in accuracy to the ordinary "superior," "good," "poor" form of designation. It likewise permits a wider range in expressing quality. To say that a building scores 325 on a 1,000-point scale



with known standards is more meaningful than to say that it is "very poor." (4) It tends to insure greater uniformity in the evaluation of buildings.

At the same time certain limitations in the score-card method should be recognized. (1) A high score *may* conceal some very fundamental weaknesses. A building scoring 900, yet having a heating system that does not work, is obviously in need of immediate attention. For example, the Box Elder High School at Brigham has some very serious weaknesses from the point of view of fire protection, yet the most that may be deducted is 55 points. One who uses the score-card method must, therefore, remember that the scoring is the result of interpreting conditions on each item *in terms of a definite maximum in points*. He must expect to scrutinize the details of the total score if he would get at the whole truth. (2) In scoring buildings, as in grading an English composition, there may be "easy" graders or "hard" graders. The only way to overcome this is to state the standards as specifically as possible, collect detailed data, and get experience in interpreting conditions uniformly in terms of those standards. Experience tends to reduce variations between scorings made by one person or among the scorings made by several persons. One needs, therefore, to be fairly cautious about interpreting too literally the score of buildings made by different persons under varying conditions. In this study the investigator is confident that the scorings in the three districts are comparable among themselves and that they are comparable with the results of the New York rural school survey.

The Butterworth score card was used in the buildings of one story and the Strayer-Engelhardt card was used for all of two or more stories. The scoring of each building was done by the superintendent<sup>1</sup> after careful training. One day was spent by the three superintendents and the present investigator in a group. Following this the investigator spent three days each with two superintendents and two days with the third visiting buildings and scoring them. In this way 32 of the 87 buildings were scored under the personal direction of the investigator. He visited over half of the remaining ones.

The score for the buildings of one story are shown in Table 2. The symbol 731+30 means that, in addition to the score of 731, this building was entitled to 30 points for facilities provided. It is a device used to separate what are designated as "essential" standards from "additional" standards. The former represents what should be required of all such buildings, while the latter represents advance-

<sup>1</sup> Credit for this work belongs to Supt. David Gourley, of Alpine; Supt. D. C. Jensen, of Jordan; and Supt. C. H. Skidmore, of Box Elder.



ment beyond those minima.<sup>2</sup> The number of teachers is indicated in parentheses following the name of each building.

TABLE 2.—*Scores of the elementary-school buildings of one story*

Alpine	Box Elder	Jordan
Franklin.....(2) 704+0	Kelton.....(1) 400+10	Corinne.....(4) 755+130
Sego Lily.....(2) 705+0	Wheelon.....(1) 400+50	Appledale.....(1) 758+50
Mountain.....(2) 731+30	Lakeside.....(1) 415+25	Collinston.....(2) 760+85
Lincoln.....(4) 742+20	Clear Creek.....(1) 585+0	Promontory.....(1) 761+55
Manila.....(2) 765+45	Washakie.....(1) 605+50	Station.....(4) 767+20
Fairfield.....(1) 771+60	East Garland.....(2) 610+15	Boothwell.....(4) 767+20
Sharon.....(4) 845+70	Beaver Dam.....(2) 643+45	Boothe Valley.....(1) 778+35
Cedar Fort.....(2) 864+55	Standrod.....(1) 648+15	Elwood.....(3) 784+50
	Lucien.....(1) 650+50	Blue Creek.....(1) 803+40
	Mantua.....(3) 675+50	Grouse Creek.....(3) 805+60
	E Tremonton.....(2) 685+20	Portage.....(4) 808+115
	Riverside.....(2) 685+25	Thatcher.....(2) 808+80
	Rosette.....(1) 705+45	Snowville.....(3) 820+60
	Howell.....(2) 710+30	E. Promon- tory.....(1) 843+40
	Park Valley.....(3) 715+35	Perry.....(3) 843+115
	Plymouth.....(3) 721+40	Deweyville.....(3) 880+125
	Yost.....(2) 740+35	Honeyville.....(4) 885+120
	Union.....(2) 741+25	
	Peurase.....(2) 755+45	

Table 3 gives data regarding median scores for buildings of different size and compares these scores with available ones from New York, Texas, and Oconee County, S. C.

TABLE 3.—*A comparison of Utah medians with those from other States*

Number of teachers	Number of Utah buildings	Medians for Utah	Medians for New York	Medians for Texas	Medians for Oconee County, S. C.
1.....	14	677+40	644+14	594+20	333+6
2.....	15	731+30	755+29	697+50	418+25
3, 4.....	20	785+77		737+72	

As will be noticed, about one third of the Box Elder buildings of one story housing about 7 per cent of the total enrollment have a score under 700, several of these obviously being entirely unsatisfactory.<sup>3</sup> Though the Utah medians are generally higher than those of the other States with which comparisons are here made, there is still much room for improvement. Analysis of the scores shows that among the chief reasons for failure to score higher are the type of desk, the seating arrangement, and the lack of a first-aid outfit, play-

<sup>2</sup> These minima are those considered by a number of competent rural school workers as necessary for a suitable building of this type. They represent judgment only and must be accepted with that limitation. (See *Journal of Rural Education*, vol. 2, pp. 9-20, and *Extension Bulletin 52*, published by the New York State College of Agriculture at Cornell University.)

<sup>3</sup> The three poorest of these, with a present enrollment of 39, have been used only one-fourth of the time during the past 10 years, due to being in areas so sparsely settled that there were not enough pupils to hold a school the remainder of the time.

ground apparatus, a flag and pole, a bulletin board, and artificial lighting.

Scores for the elementary and the high school buildings as measured on the Strayer-Engelhardt score cards are presented separately in Tables 4 and 5.

TABLE 4.—*Scores of the elementary-school buildings of two or more stories*

Alpine		Box Elder		Jordan	
Forbes	(6) 671	Tremonton	(7) 620	Bingham	(7) 703
Vineyard	(4) 716	Fielding	(5) 630	Upper Bingham	(4) 707
Page	(4) 717	Willard	(6) 697	Bingham Gynn	(7) 709
Lake View	(4) 723	Central	(12) 708	Riverton	(11) 760
Harrington	(13) 732	Lincoln	(13) 708	Midvale (West)	(9) 765
London	(6) 743	Bear River City	(5) 719	South Jordan	(8) 771
Spencer	(6) 745	Garland	(8) 758	Highland Boy	(7) 778
Lehi Primary	(8) 769			Union	(8) 784
Alpine	(4) 766			Midvale (East)	(8) 806
Lehi Grammar	(9) 788			Draper	(9) 861
Central	(10) 805			Sandy	(16) 896
				West Jordan	(11) 969

TABLE 5.—*Scores of the high-school buildings*

Alpine		Box Elder		Jordan	
Lehi	(10) 734	Box Elder	(42) 733	Jordan	(25) 789
American Forks	(10) 761	Bear River	(17) 789	Bingham	(13) 800
Lincoln	(10) 769				
Pleasant Grove	(10) 789				

In all these larger buildings some improvements are needed. In some cases change in placement of seats, increase in toilet facilities, better provision for cloakrooms, refinishing the walls, adding fire escapes, and the like can be made without great cost. In other cases, involving extensive structural changes such as lighting from two sides and width of stairway and corridors, it will often be wiser to use existing facilities until a new building is possible. In some cases—e. g., at Tremonton and Fielding—there is need of very extensive remodeling or rebuilding in the immediate future.

A score in terms of known standards is a useful measure of a building as a whole. As a supplement to this measure, it is helpful to analyze the facilities and conditions on certain basic factors.

One of the outstanding deficiencies in the elementary-school buildings of these districts is the placement of desks. The almost universal type of desk is the single nonadjustable. In fully three-quarters of the rooms one or more desks are not fitted to the children occupying them. Seats are often too low or too high; desks are too low or too high; and the distance between desks and seats is either too great or too small. Probably no expenditure of effort in building improvement will yield such returns as will the remedying of these deficiencies. It should be done without delay.



TABLE 6.—*Percentage of elementary school classrooms having north or south orientation*

Number of teachers	Alpine		Box Elder		Jordan	
	North	South	North	South	North	South
1.....	0	1.0	0	1.6	0	0
2.....	3.3	6.5	1.6	5.5	0	0
3, 4.....	6.5	4.3	2.3	11.7	1.5	3.1
5-9.....	5.4	9.8	0	1.6	6.2	9.3
10.....	5.4	3.2	2.3	2.3	6.9	7.7

Another striking weakness in the elementary-school buildings is the orientation of the classrooms. Data in Table 6 give the percentage of rooms in each district that have a north or south orientation. Orientation is here defined as the direction from which light comes on the pupil's left. North light is unsatisfactory for classrooms because it does not give direct sunlight during the day. South light, on the other hand, gives too much direct sunlight on the pupils' desks. East or west lighting is considered the best, with perhaps a slight angle toward the south. In many cases, as the data here given show, orientation was given little consideration in the planning and the location of the building.

TABLE 7.—*Percentage of elementary schoolrooms lighted from one to four sides*

Number of teachers	Alpine				Box Elder				Jordan			
	1	2	3	4	1	2	3	4	1	2	3	4
1.....	0	0	0	1.1	7.8	3.1	0	0	0	0	0	0
2.....	0	8.7	2.1	0	12.5	3.1	0	0	0	0	0	0
3, 4.....	15.2	8.7	2.1	0	21.1	8.6	0	0	9.3	10.8	0	0
5-9.....	0	36.9	0	0	20.3	3.9	0	0	24.1	25.6	0	0
10.....	5.5	20.7	0	0	10.2	9.4	0	0	10.8	18.7	0.7	0

In 18.1 per cent of the elementary classrooms light comes from one side only; in 49.9 per cent from two sides; in 1.7 per cent from three sides; in 0.3 per cent from four sides. In 7.3 per cent of the rooms the pupil's left is not lighted. Table 7 permits of a comparison among the three districts and among schools of different size. The significance of unilateral lighting from the pupil's left is that it places the light upon the desk without the shadows cast by the body or by the hand in writing. These shadows are produced by light from the rear or the right. Windows in the front of the room are especially to be condemned because of the direct glare. The few cases should be remedied without delay.

TABLE 8.—*Types of toilets in elementary and high-school buildings*

Number of teachers	Alpine		Box Elder		Jordan		
	Outside	Flush	Outside	Flush	Outside	Flush	Both
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
1	4.3	0	29.5	0			
2	21.8	0	13.16	9.2			
3, 4	8.7	17.4	11.3	15.9	20.0	10.0	5.0
5-9	0	21.8	0	11.3	0	40.0	0
10	0	26.0	0	9.2	0	25.0	0

I am informed by Superintendent Jensen that since the survey data were collected flush toilets and modern heating plants have been installed in these buildings. This would increase the percentage of all buildings having flush toilets and steam heat to 70.

A comparatively large number of the buildings, 63 per cent, have flush toilets. Of the outside toilets, all are in buildings of four teachers or under. Many of these are in the sparsely settled areas in the western part of Box Elder district, where the installation of a flush system would be extremely difficult if not impossible.

The type of heating is shown by districts and size of school in Table 9. The fact that 63 per cent of all buildings are heated by steam shows that considerable attention has been given to this important problem. Stove heat is not found in these districts in buildings of more than four teachers. All unjacketed stoves should be replaced at once by more modern facilities.

TABLE 9.—*Type of heating provided in elementary and high-school buildings*

Number of teachers	Alpine			Box Elder			Jordan			
	Unjack- eted stove	Jack- eted stove	Steam	Unjack- eted stove	Jack- eted stove	Steam	Unjack- eted stove	Jack- eted stove	Hot air	Steam
	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.
1	0	5.3	0	11.3	18.2	0	0	0	0	0
2	15.7	5.3	5.3	0	9.1	13.7	0	0	0	0
3, 4	0	0	31.5	0	5.8	20.5	15	1.5	0	15
5-9	0	0	26.3	0	0	11.3	0	0	5	35
10	0	0	10.6	0	0	9.1	0	0	0	25

<sup>1</sup> See note on preceding table.

Facilities for drinking are unusually good. All of the schools of Alpine and Jordan districts are provided with bubbling fountains. These are often found not only in the building but on the playground as well. In most cases the supply is piped from mountain springs. In Box Elder district 36 per cent of the buildings, housing about 10 per cent of the pupils, do not have a fountain. In all cases these are in the one or two teacher buildings and for the most part are in the schools in the sparsely settled areas. In a number of these cases it is necessary for the pupils



to carry their water supply from home, since drinking water is not obtainable near the school building.

Brick is the material of construction in three-fourths of the buildings of these districts. Of the remaining fourth, 5 buildings are of stone, 4 of brick and wood, and 12 are frame. The latter are all one and two teacher buildings in Box Elder district.

Fire protection in terms of the size of the building is generally good. There is, however, one notable exception—the Box Elder High School at Brigham. This building, with its 42 teachers and 1,150 pupils, has been constructed in three different units. The stairs are of wood, the corridors are only moderately wide, with oil-soaked floors, obstructed somewhat by lockers, and on the second floor by tables used in serving lunch. Fire hose is found in six different parts of the building, but there is only one fire escape. A catastrophe might occur without warning. At the time of the inspection the steps were being repaired with a fire-resisting material. New fire escapes<sup>4</sup> should be installed at once, and the lunch tables removed from the second-floor corridor. At an early date all corridor floors should be relaid with fire-resisting materials, and fireproof stairs should be provided.

Janitorial service in the Alpine district is generally good; in Jordan, poor in a few schools, fair in some, good in most; in certain Box Elder districts it is noticeably inefficient. The solution is, of course, partly in better selection of janitors and helpers and partly in helpful supervision of those who show themselves reasonably effective and willing to learn. No janitor should be appointed without the approval of the principal and superintendent. The persistent rating of the janitor, together with constructive criticism by the principal and superintendent, should soon bring marked improvement. In Jordan the following score card is used:

#### JANITOR'S SCORE CARD

*(To be filled out by the principal of each school)*

##### Personal habits (maximum 20 points):

Cleanliness .....	_____
System .....	_____
Promptness .....	_____
Devotion to duty .....	_____
Moral influence .....	_____
Total .....	_____

##### Maintenance of cleanliness:

In schoolrooms, halls, and toilets (maximum 30 points) .....	_____
Care of school grounds (maximum 10 points) .....	_____

<sup>4</sup> I am informed by Superintendent Skidmore that additional fire escapes are now being put up and that other fire-protection measures are being put into effect. The sum of \$12,000 is being expended.

Ventilation of schoolrooms and upkeep of heating plants (maximum 15 points) .....

Care and upkeep of school plant other than heating plant (maximum 15 points) .....

Economy in the use of fuel and all janitor's supplies (maximum 10 points) .....

Total .....

Rating .....

90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D.

Do you recommend reappointment? .....

School .....

Janitor's name .....

Principal .....

Both Jordan and Box Elder districts employ full-time building supervisors, whose business it is to discover deficiencies and to make or direct the necessary improvements.

Table 10 gives data regarding provision for special rooms in elementary and high schools. The latter are particularly well provided with auditoriums, gymnasiums, libraries, and rooms for household and industrial arts. In several cases special one-story buildings for the industrial work have been erected on the high-school grounds. Always these shops are of brick and built to harmonize with the main building. In the elementary schools 8 of the 30 one and two teacher buildings and 32 of the 49 larger buildings have some provision for physical activities. In many cases this provision is merely an extra classroom. In the small buildings this is probably sufficient, but in the larger ones more elaborate facilities are to be desired. In the smaller schools the principal's office may often be used also as a nurse's room, and where the teachers are of the same sex as a teacher's room as well. It would, however, be desirable, particularly in those buildings housing the junior high-school grades, to make some provision for a woodworking shop, for a prevocational home-making room, and for an auditorium. In the latter case it should be possible to make a combination with the gymnasium.

TABLE 10.—*Special rooms*

Rooms	Elementary buildings					High-school buildings
	One teacher	Two teachers	Three to four teachers	Five to nine teachers	Ten teachers	
Number of buildings .....	15	15	25	17	7	8
I. Officers' rooms:						
1. Principal's office .....			12	14	7	8
2. Board room .....						2
3. Teacher's room .....			1	5	2	4
4. Medical rooms:						
a. Nurse's room .....			1	3		2
5. Janitor's room .....			5	5	3	8



TABLE 10.—*Special rooms*—Continued

Rooms	Elementary buildings					High-school buildings
	One teacher	Two teachers	Three to four teachers	Five to nine teachers	Ten teachers	
II. Large rooms for general use:						
6. Playroom.....	4	4	14	9	1	7
7. Auditorium.....				1		7
8. Gymnasium.....						1
9. Auditorium and gymnasium combined.....			4	3		5
10. Library.....			4	8	6	4
11. Swimming pool.....						3
12. Lunch room.....				1		
13. Cafeteria room.....				1		
III. Other special rooms:						
14. Household arts—						
a. Kitchen.....				1		9
b. Dining room.....					1	7
c. Sewing.....						9
15. Industrial arts—						
a. Woodwork.....				2	1	8
b. Farm mechanics.....				1	1	7
c. Autorepair.....						4
d. Paint room.....						4
e. Agriculture.....						7
f. Art.....						1
g. Forging.....						2

Alpine district has a unique method for providing auditorium and gymnasium facilities. In connection with 11 of the 23 buildings (numbers 9, 10, 11, 12, 15, 16, 17, 18, 20, 22, and 23, as shown on the map presented on a later page) there has been constructed by the school district a commodious brick building, which is used as a sort of community center. Whether the district is justified in doing this on such a scale instead of meeting other needs is a problem in educational values that this study could not undertake to settle. To do so with any degree of certainty would have called for an elaborate study of the educational needs of the district that was impracticable in the time available. Neither of the other districts makes such provision.

#### THE PROBLEM OF CONSOLIDATION

In these three districts considerable progress has already been made in the direction of feasible consolidation of buildings. Inasmuch as the small, common-school district as the local unit has been discontinued in the State, one of the chief obstacles to developing effective building units has been eliminated. Now the difficulties are those of transportation and of getting the community to refrain from objecting to the discontinuance of a school, in order that improved facilities may be provided at other points in the district.

We shall use the Alpine district as presenting problems of further consolidation somewhat typical of the three districts studied. The

accompanying map shows the location of each school building. Data regarding each school are given in Table 11. The investigator is indebted to Supt. David Gourley for collecting the data here used.

TABLE 11.—Data regarding schools in Alpine district

Building No.	Number of teachers	Grades included	Number of children enrolled					
			1910	1915	1920	1923	1924	1925
1	2	1-6	69	53	47	66	69	67
2	4	1-8				130	163	148
3	4	1-8				96	131	137
4	6	1-8	157	200	233	199	194	195
5	4	1-8	106	120	108	113	119	112
6	4	1-8	65	114	151	153	133	147
7	4	1-8	77	100	92	137	171	168
8	6	1-8		243	247	217	223	228
9	10	1-8		383	405	394	427	418
10	13	1-6				652	787	816
11	6	7-8	(1)	(2)	(3)			
12	4	1-8	(1)	(4)	(4)	50	59	(1)
13	2	1-4			130	112	126	135
14	2	1-4				57	59	53
15	2	1-4				72	82	73
16	8	1-5				685	697	701
17	9	5-8	(4)	(4)	(4)			
18	2	1-8		72		40	40	41
19	1	1-8				17	22	14
20	2	1-8				64	62	54
21	10	9-12	94	180	273	339	257	277
22	10	9-12		188	196	241	251	252
23	10	9-12	81	170	181	216	226	277
24	10	9-12	50	57	140	258	225	251
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\* Decrease due to sending children to other schools.

† Increase due to transferring children who had been attending other schools.

‡ Included in No. 10.

§ Not in use.

|| Included in No. 15.

¶ An isolated community gradually losing its population.

‡ Increase here due to better attendance of children in the area served by this building.

\* Leh. auditorium.

† American Fork auditorium.

Only six schools have fewer than four teachers—Nos. 1, 13, 14, 16, 17, and 18. School 17 is the only one-teacher building in the district. Schools 16 and 17 present a problem of consolidation worthy of careful consideration. These schools are in small distinct communities in the foothills, approximately 15 miles from the nearest high school and 5½ miles from each other.

If school 17 were combined with 16, it would be possible to care for all children with the two teachers and the present building at No. 16. This would involve the carrying of the 12 pupils in school 17 a distance of 11 miles each day, a feasible project if other factors warranted. An important factor in such a situation is that the consolidation of buildings would deprive a distinct community of a school. In the judgment of the investigator this should not be done except where greatly improved school facilities would result. The school is a socializing agency of no mean influence, and other factors not directing otherwise it should be close to the community. What



we really have here are two sets of factors operating more or less against each other as to the location of the school. First consideration should be given the facilities provided for the children. In this particular situation marked improvement does not seem likely to result from consolidation.

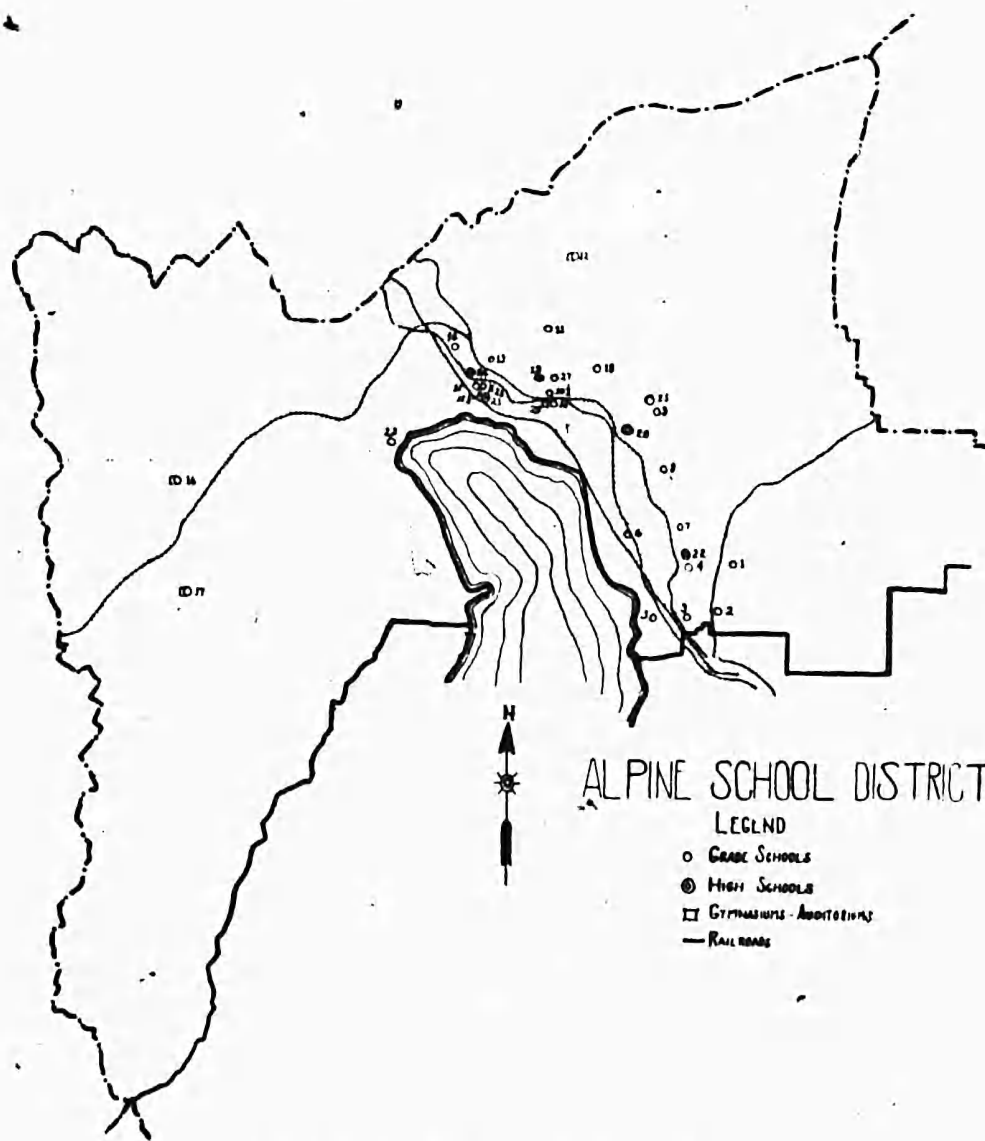


FIG. 27. Location of schools in Alpine district

Older pupils from these two schools will go to Lehi (school 21) for high-school facilities. These pupils may be sent to Lehi to board or, what is preferable except during severe weather, they may be transported daily as soon as a good road is provided.

Schools 13 and 14, close to Lehi, should be discontinued. There is no distinct community in either case, Lehi being the natural center.

Of the schools of four teachers or more, Nos. 2 and 3 are sufficiently close to be readily combined. At present this should not be

done. Both buildings are reasonably good (though needing improvement), and in both the attendance is fairly well distributed. Any saving in costs that might result would, with the present attendance, be more than offset by the transportation costs. Should the population in this area increase markedly in the next few years, it might be desirable to consolidate these two schools. In Lehi, a village of 3,600, there are now four elementary buildings—Nos. 13, 14, 15, and 15½. It has already been suggested that 13 and 14 be discontinued. Buildings 15 and 15½ house 8 and 9 teachers and are on the same grounds. They were constructed at different times as separate units. Neither is sufficiently antiquated to justify condemnation at present, in view of other pressing needs of the district. When the time comes for rebuilding, the board will naturally plan a single building sufficient to house all the elementary pupils of Lehi and its immediate vicinity. It will also select a type of building capable of expansion as new needs arise. The same should be done regarding buildings 10 and 10½ at American Forks. Such small buildings are not economical.

A study of the available data regarding growth in enrollment in the various schools (Table 11) shows that there is not now evidence of such marked growth at any point as to justify additional building facilities in the immediate future. The most marked increase has been in high-school attendance, but the four existing high schools should care for these needs for the next few years, if the present organization is continued. If the district undertakes, as it ought, to develop genuine junior high schools, buildings 24 and 25 not now used might be remodeled for this purpose. These will care for all pupils of these grades in the north central part of the district. The needs of the southern areas could be met by some expansion at school 29.

*Unused and unnecessary facilities.*—In a State that has so recently developed a larger local unit, and in which consolidation has been so extensively pushed, it is inevitable that there will be some unused rooms or buildings. Table 12 shows the number of these unused rooms in used buildings in the three districts, according to size of building.

TABLE 12.—Classrooms, in used buildings not used for classes

Number of teachers	Alpine	Box Elder	Jordan
2		1	
3-4	1	18	2
5-9	6	5	6
10	2	4	6



Though there is a fairly large number of classrooms that are not used for classes, that does not mean that the facilities are wasted. In Alpine, in all except two cases, there is not more than one such room to a building, and in practically every case the room is used for other purposes, such as a playroom, lunchroom, or community room. In Jordan and Box Elder districts there are two buildings each where there are two or three classrooms not used as such.

In Alpine there are five unused buildings—three of two rooms each and two of nine rooms each. In Box Elder there is one unused building—one of four-teacher capacity in Brigham City. Jordan has no unused school buildings. Though the unused building in Box Elder is not entirely modern, the district is holding it in case of an emergency need until adequate quarters can be provided. This is probably wise. In Alpine buildings 11 and 23 are not likely to be used again, and so should be sold as soon as there is a favorable opportunity. So also should 13 and 14 if the recommendation to discontinue them is accepted.

Alpine does, however, present a serious problem of overbuilding in addition to its nine unused classrooms and five unused buildings. In 1921 the district purchased at Lehi a church building, known locally as "The Tabernacle." It is suitable for little else than an auditorium, and in view of the splendid gymnasium in the new high school just across the street that might be made to serve satisfactorily the two purposes, the holding of this building seems unwarranted; \$28,000 was paid for it. The district report for 1924-25 shows an expenditure of \$506.10 for janitor service, fuel, light, etc., besides a depreciation of \$1,125. Interest on the original cost and maintenance make this building cost the district (aside from depreciation) nearly \$2,000 each year. This seems too high a price to pay for the use of a building about once each week. Another illustration of waste is seen at school 16. There a good one-teacher building was abandoned, and an entirely new one of two teachers built. It would seem that an additional room could have been added to the old building at great saving.

At American Fork a gymnasium costing \$40,000 was constructed in 1922 despite the fact that there was already a fairly adequate gymnasium in the high-school building. This, with the Tabernacle and the five unused buildings, causes Alpine to carry an overbuilding burden of about \$75,000. The unused buildings are estimated at the amount for which they could probably be sold. When it is realized that interest on outstanding bonds in this district is nearly 11 per cent of the total maintenance cost, one sees what the lack of a careful building program means. This seems especially regrettable when it is evident, even to one who spends but a few days

in the district, that more supervision and more clerical assistance are pressing needs. There are undoubtedly other needs that would appear after a more careful survey of the entire educational program of the district.

#### STATE LEADERSHIP IN SCHOOL BUILDING PROGRAMS

Had Alpine district made a careful study of its building needs, some of the mistakes just cited would undoubtedly never have been made. There has been lack of forethought.

To prevent a repetition of this in other districts, especially those in which the population is growing rapidly or in which consolidation is still an important problem, the State should make provision for a school-building supervisor. While building needs must be weighed along with other needs that the State may at present undertake to meet, it should be remembered that buildings once constructed can not be changed as to location nor can they be remodeled without great expense to meet a new program. The next decade will be a critical one so far as building is concerned, and an adequate building department in the office of the State superintendent will undoubtedly pay for itself many times over.

In the judgment of the survey staff the head of this work should be a trained educationist rather than a trained architect. He should be a member of the research service in the State department of education recommended elsewhere in this report. If a combination of the two types of training could be found in one person, so much the better; but the fundamental problem is one calling for educational insight. One or more architects may be employed for whole or part time to give such assistance as may be needed in checking plans, inspecting buildings before they are accepted, and the like. The essentials of a State program on buildings may be briefly outlined as follows:

1. Require that before further building in a district may be undertaken a survey be made of building needs. This will probably call for new legislation.

2. The State school building supervisor should be the adviser, and if necessary the director, of such a survey. There should be taken into account such factors as the adequacy and quality of present buildings; the type of organization (e. g., the 6-6 or 6-3-3 plan) desired in the district; the nature of the educational program that seems practicable in regard to high-school facilities, vocational education, physical training, etc.; the desirability of further consolidation; the probable needs of the various communities within the district during the next few years; and the financial ability of the



district. With such facts as these a program may then be worked out that should reduce to a minimum mistakes in building.

3. The State should not have authority to determine what the district should accept in the way of a building program. In the long run it is probable that better results will be secured if the district is made responsible for its own building program after it has been required to make an intelligent analysis of its needs. If the State can not make its leadership effective in such matters, it is doubtful if it could improve conditions through coercion.

4. It is expected that the State will set minimum standards on such matters as the conditions of bonding, the facilities that should be offered in the way of subjects, and the adequacy and quality of the building.

5. The State should set up minimum standards that should be met by every new building. These should be only on such matters as are of fundamental importance. To enforce this, all plans for new buildings and for remodeling involving structural changes should be approved by the State. The State will thus be given an opportunity to advise districts on many other points than those involved in the minimum standards. No new legislation is needed to accomplish this. However, there appears to be no good reason why cities of the first and second classes should be exempted from State supervision as they now are.

6. Control of school-building standards should be left with the State board of education as at present. This permits more flexibility in the establishment of standards to meet changing conditions or to utilize new knowledge than when the details are set down in law.

7. It is assumed that the State school-building supervisor will coordinate his work with that of the other specialists in the State department. Buildings are to house desired educational activities. The building supervisor, therefore, will need to consult with, for example, the specialist in agricultural education or in the junior high school as to what objectives they believe should be sought in their fields and as to how those objectives may best be attained through building facilities.

8. It is, of course, understood that a building program should be a continuous one. School officers should be studying continually how buildings may be made to house better the educational program desired. The district will usually not put a complete ideal program into effect at once, but will work gradually to that end. This will not only distribute the cost but will permit of gradual adaptation to new needs.

TABLE 13.—Bonds outstanding—Rate of interest<sup>1</sup>

District	Total bonds outstanding	Coupon rate	Net rate to district	Period for which issued (years)	Value sinking fund account	Net bonds outstanding	Rate on sinking fund, 1924-25	Net outstanding per pupil enrolled, 1924-25	Per cent assessed valuation outstanding	Method of payment
Beaver	\$219,850	5	5	20	\$91,807	\$148,043	4.25	\$1.01	2.3	2 issues serial; 5 issues sinking fund.
Box Elder	390,000	4.25	4.25	20	97,121	292,879	4	54	1.8	Sinking fund.
CACHE	425,000	4.25-5	4.25-5.4	20		425,000		82	2.9	Serial and sinking fund.
Carbon	824,000	4.5-5	4.8-5.8	10-20	14,906	809,094	4	154	6	Serial.
Davis	12,000	5	5	20		12,000		31	2.2	Sinking fund.
Duchesne	136,000	5-6	5-6	20	8,492	128,508	2.5	51	3.5	Do.
Emery	269,800	5-6	5-6	20	26,623	243,177		104	2.8	Serial and sinking fund.
Garfield	72,450	5-6	5	5-20	3,181	69,269		17	2.2	Sinking fund.
Grand	12,800	5	5	20		12,800		40	2.3	Do.
Granite	1,008,000	4-5	4-5	5-20	133,916	874,084	4.25	122	5	Serial.
Jordan	230,000	4-5	5.29	20	(1)	230,000		45	2.0	Sinking fund.
Juab	143,000	5	5.29	20		143,000		108	1.1	Do.
Logan City	115,000	4.5-5	4.5-5	20	45,184	69,816	4	25	3	Sinking fund.
Millard	128,700	5-6	4.5-5	20	71,137	57,563	4	16	7	Serial.
Murray	33,000	5	5	20		33,000		23	2.3	Sinking fund.
Ogden City	908,000	4-5	4-5	20	64,716	843,284	3	95	1.3	Sinking fund and serial.
Park City	None									
Provo City	130,000	4.5-5	4.5-5.5	1-20	847	129,153	4	38	1.7	Sinking fund.
Rich	27,500	6	4.4-8	20	11,100	16,400	4	28	3.5	Do.
Salt Lake City	3,616,000	4-5	4-4.8	20	405,056	3,210,944	4.25	101	4	Serial.
San Juan	35,000	5-6	5-6	10-20	9,943	25,057	6	34	1.2	Sinking fund.
South Salt Lake	247,450	5	5	20	10,000	237,450	0	91	3.5	Do.
South Summit	15,000	5.5	5.5	20	0	15,000	0	28	4	Serial.
Tintic	35,000		5	20		35,000		25	4	Do.
Tooele	65,000	4	4	2-8	0	65,000	0	29	3.4	Sinking fund.
Uintah	250,000	5	5	20	29,501	220,499	4.5	85	1.8	Do.
Wasatch	150,000	5	5	10-20	28,000	122,000		74	1.2	Serial.
Weber	240,000	4.5	4.5	4		240,000				

<sup>1</sup> Data relating to bonds outstanding in Table 13, p. 385, and Table 23, p. 437, do not exactly agree, having been gathered at different times.<sup>2</sup> Used to redeem.<sup>3</sup> Tax anticipation notes.



## THE BONDING SITUATION

Table 13 summarizes important facts regarding bonding in 28 of the 40 school districts of the State. The maximum coupon rate permitted by law is 5 per cent. Seven of the districts report a coupon rate higher than this. Of the 11 States in the western group, 9<sup>5</sup> have 6 per cent as the maximum rate permitted, and one sets it at "a rate not exceeding legal interest." Utah's maximum period for which bonds may be issued is 20 years, which is the median period prescribed by Western States.<sup>6</sup> In practice, most districts issue their bonds for this maximum period, though 9 of the 28 report that some at least are issued for other periods, varying from 1 to 10 years. The Utah law permits the board to reserve the right to redeem in whole or in part after five years.

The State law permits a county school district of the first class to issue bonds to the extent of 4 per cent of the taxable property and a city school district 3 per cent. In all cases the districts are well within these limits on net outstanding bonds, the percentages varying from nothing to 3.5 per cent. The net outstanding per pupil enrolled varies from nothing to \$154. In 1924 the net outstanding bonded indebtedness was \$85 per pupil enrolled for the entire State. This may be compared with \$58 in Oregon, \$68 in New Mexico, \$75 in Washington, \$89 in Montana, \$94 in Idaho, \$96 in Colorado, \$125 in Arizona, and \$158 in California.

Though the sinking-fund method of paying for bonded indebtedness is still the prevailing one among Utah districts, seven report that they are using the serial method entirely and four that they are using it in part. The serial method is to be preferred because it insures that the bonds will be paid when due and distributes the payments as desired among the years that the bonds are outstanding. The chief dangers of the sinking-fund method of payment are that the fund will not always be levied each year, that its proceeds may be diverted from its original purpose, and that the fund may not be wisely invested, so as to yield the maximum income. The Utah law requires that 2 per cent of the par value of outstanding bonds be raised each year and put into a sinking fund. No data were collected to show whether or not this is actually done or whether there is any tendency to divert the funds so raised. Information in Table 13 indicates, however, that the rate earned on sinking-fund investments was usually less than the net rate paid by the district on its bonds.

The State department of education is encouraging the districts to use a "pay-as-you-go" policy.<sup>7</sup> Current professional judgment

<sup>5</sup> Fowlkes, J. G. School Bonds, p. 107.

<sup>6</sup> Ibid. p. 96.

<sup>7</sup> See Fifteenth Rept. Supt. Pub. Instruction, 1924, p. 19.

favors this so far as it can be done without seriously handicapping the schools in their work. In line with this movement a law was passed in 1915 permitting boards of education to submit to the voters the question of levying a special building tax. This may not exceed 1 per cent of the taxable property. The tax may be levied for one year or more. The board of education may also include building items in its regular budget.

Table 14 gives data from 21 districts regarding the levies made for buildings in 1924-25. Only one district reported a special building tax.

TABLE 14.—Data regarding levies for buildings

District	Special building tax (mills)	Mills set aside in budget	Total mills for building	Amount for building
Beaver	0	0.2	0.2	\$7,500
Big Water		.25		6,000
Cannonville				14,253
Dix				43,162
Drummond	1.5		1.5	7,800
Garfield		.7	.7	4,500
Grants		1.3	1.3	49,870
Heber	0	1.6	1.6	112,000
Irish	0	0	0	0
Lehi	0	1.1	1.1	7,500
Mojave	0	1.1	1.1	17,997
Murray	0	2.3	2.3	10,698
Ogden City	0	2.6	2.6	101,393
Provo City	0	0	0	365
Rice	0	1.0	1.0	2,013
Salina City	0	0	1.4	250,000
South Hill	0	0	2.4	5,000
South Summit	0	0	0	0
Tropic	0	0	0	0
Utah	0	0	0	0
Wasatch	0	0	0	0



## Chapter XI

### FINANCING THE ELEMENTARY AND HIGH SCHOOLS

By FLETCHER HARPER SWIFT, *Professor of Education, University of California*

#### HOW SHALL WE MEASURE ABILITY TO SUPPORT SCHOOLS?

Utah ranks thirty-second among the 48 States in ability to support schools and ranks third in effort to support them. Various measures of a State's ability to provide school revenues may be taken. The most satisfactory measures are income and wealth or taxable property. If two States had exactly the same income and exactly the same wealth, but the first contained twice as many school children as the second, it is evident that the first State would be only half as able as the second to provide the revenues needed for its schools. For this reason it has become customary, in attempting to compare States, counties, cities, or school districts as to ability to finance schools, to divide the wealth or the income of each by the number of children to be educated. Thus we get as a measure of ability to finance schools wealth per school child or income per school child.

This ability to finance schools we may designate as the economic resources of a State, or other political corporation. The most satisfactory measure or index of a State's economic resources would be one which combined into a single sum or index its wealth and its income. Economists are agreed that income is a more accurate measure of ability to pay than taxable wealth. It has therefore been deemed best in attempting to devise a measure or index of economic resources to combine only a certain per cent of a State's total wealth with its net current income. A combination which has been used from time to time, and which is perhaps as satisfactory a combination as can be devised, is one which uses current income plus one-tenth of wealth.

A recent bulletin of the National Education Association<sup>1</sup> applies this measure or index to each of the 48 States as a means of determining their ability to provide school revenues. It also arranges and ranks the States on the basis of their economic resources per child 6-13 years of age. In addition to this it shows for each State the per cent of its economic resources that was actually expended for the support of public elementary schools and high schools. It will

<sup>1</sup> Research Bulletin of the National Education Association, Vol. IV, Nos. 1 and 2, 1920.

be seen that this per cent may be taken as a measure of the effort put forth by the respective States.

It has been necessary to enter upon this somewhat lengthy explanation because in the tables immediately following not only is Utah's ability and effort to support schools presented in terms of these two measures, but on the basis of the first of these two measures, the index of economic resources, certain States have been selected for comparison with Utah, and other States which it might seem would naturally be selected for such a comparison are excluded. Having now indicated the measures to be employed in determining the relative ability and effort of the various States to support schools we may now ask, where does Utah stand in comparison with the other States of the Union with respect to (1) her ability to provide school revenues, (2) her effort to do so, (3) the achievements of her educational system. The answers to these questions are presented briefly in Table 1.

TABLE 1.—Where Utah stands among the 48 States as to ability, effort, and results,<sup>1</sup> 1924

Item	Amount	Rank among 48 States
1. Ability to provide school revenues—Index of economic resources (income and wealth) per child 6-13 (1922)	\$4,554	32
2. Effort—Per cent of index of economic resources expended for support of public elementary and high schools (1922)	2.53	3
3. Expenditure per pupil in average daily attendance	\$85	30
4. Value of school property per pupil enrolled	\$165	28
5. Length of school year in days	169	29
6. Per cent of school population 5-17 years enrolled in school	88.8	13
7. Per cent of enrollment in average daily attendance	82.5	7
8. Average annual salary of all teachers	\$1,208	21
9. Preparation of teachers—Per cent who were normal graduates (1922)	69	9

<sup>1</sup> Figures taken from Bureau of Education Bulletin, 1925, No. 42, unless otherwise specified.

<sup>2</sup> The measure here employed is the index of economic resources (average annual current income plus net tangible wealth) divided by the number of children 6-13 years of age. This measure including both income and tangible wealth is superior to the more commonly employed measure of estimated true income per child. See National Education Association, Research Bulletin, Vol. IV, Nos. 1 and 2, 1926, pp. 1, 2, 3, 30.

<sup>3</sup> See p. 49, Table 26, column 6.

<sup>4</sup> See p. 49, Table 17, column 5.

From Table 1 we see that Utah is outranked by 31 States in the Union with respect to ability to provide school moneys (item 1), but in the effort she is making (item 2) outranks every State in the Union except two, North Dakota and Montana.

Although exerting herself out of all proportion to her ability, the resources upon which she may draw are so meager in comparison with those of other States that Utah ranks only twenty-eighth in respect to her investment in school property per child (item 4), and thirtieth in the amount of money she spends in education for each child in average daily attendance (item 3).

Twenty States in the Union pay a higher annual salary to teachers (item 8), and 28 have a longer school year (item 5). In the



quality of the teachers she provides, as measured by the per cent who are normal-school graduates (item 9), in the per cent of her school population who are enrolled (item 6), and in the number of children out of every 100 enrolled who are in average daily attendance (item 7), she ranks relatively high. Finally, we note that in every item included in Table 1 Utah's attainment exceeds her rank in ability. From this general consideration let us turn to the question how Utah compares in ability, effort, and achievement with States with whom it is fair to compare her. Before this question can be answered it is necessary to select the States. Obviously the fairest basis of making such a selection will be ability to provide school revenues, namely, the index of economic resources, the measure already explained and which was employed in Table 1.

Table 2 presents two groups of States: (1) The four States—Arizona, Montana, Nevada, and Wyoming—with which many citizens might be inclined to assume Utah ought to be compared; (2) seven States selected because they rank relatively close to Utah in financial ability.

TABLE 2.—*Ability of Utah to support schools compared with that of other States<sup>1</sup>*

Four States selected on basis of geographical location and other features regardless of financial ability			Eight States selected on basis of financial ability		
State	Wealth and income <sup>2</sup> per child, 6-13 <sup>3</sup>		State	Wealth and income <sup>2</sup> per child, 6-13 <sup>3</sup>	
	Amount	Rank in United States <sup>4</sup>		Amount	Rank in United States <sup>4</sup>
Nevada	\$11,576	1	Idaho <sup>4</sup>	\$4,970	31
Wyoming	7,707	7	Utah	4,554	32
Arizona	6,217	20	West Virginia	4,294	33
Montana	6,065	21	North Dakota <sup>4</sup>	4,111	34
			Texas	3,812	35
			Florida	3,766	36
			New Mexico	3,496	37
			Oklahoma	3,415	38

<sup>1</sup> Data taken from Research Bulletin of the National Education Association, Vol. IV, Nos. 1 and 2, 1925, p. 30, Table 10, column 6.

<sup>2</sup> Index of economic resources, i. e., average current income plus one-tenth of wealth.

<sup>3</sup> Ibid., column 11.

<sup>4</sup> States which will be selected for comparison with Utah as to educational achievements.

A mere glance at Table 2 shows us that Arizona, Montana, Wyoming, and Nevada are so much more able to produce school revenues than Utah that they should be excluded from any comparison of educational achievements. Considering financial ability, social, and economic conditions, the States included in Table 2 that are properly comparable with Utah are Idaho, North Dakota, and New Mexico. This comparison is presented in Table 3.

TABLE 3. - Utah compared with three other States as to ability, effort, and educational achievements, 1924

[The column headed "Rank" indicates the State's rank among the 48 States]

State	Ability and effort index of economic resources per child 6-13 <sup>1</sup>		Children 5-17 years enrolled		Enrollment in average daily attendance		Attendance by each pupil enrolled		School property per child enrolled		Expenditure per child in average daily attendance		Annual salary of all teachers		Teachers who were normal graduates	
	Amount	Rank	Per cent	Rank	Per cent	Rank	Days	Rank	Value	Rank	Amount	Rank	Amount	Rank	Per cent	Rank
Iowa	\$4,970	31	2.44	7	75.9	33	122.1	35	\$168	27	\$101	21	\$1,154	22	42	22
Utah	4,354	32	2.33	3	84.5	7	142.7	18	165	58	85	30	1,208	21	69	9
North Dakota	4,284	33	2.88	1	82.5	16	136.2	28	213	9.5	106	12	877	36	26	35
New Mexico	3,406	37	2.12	11	72.6	39.5	121.8	33	103	37	74	34	962	32	18	41.5

<sup>1</sup> Items and ranks in columns 2, 3, 5, and 11 are for the year 1923 and are taken from Research Bulletin of the National Education Association, Vol. IV, Nos. 1 and 2, 1926; all other data are for 1924 and are taken from Bureau of Education Bulletin 1925, No. 42.

<sup>2</sup> The measure here employed is the index of economic resources which is the sum of the annual current income plus one-tenth total wealth. This sum divided by the number of children 6-13 years of age is the amount indicated in column 2.



From Table 3 we see that Utah stands midway between Idaho and North Dakota in financial ability, having in fact an index of economic resources amounting to \$416 less than that of Idaho and \$260 more than that of North Dakota. It is worthy of comment that, although handicapped as to ability when compared with Idaho, and with only a slight advantage over North Dakota, Utah outranks, and in most cases far outranks, both of these States in all matters of educational achievement presented in Table 3. She pays her teachers an annual average salary nearly one and one-half times as large as that paid by North Dakota and \$54 more than that paid by Idaho. Out of every 100 teachers employed in North Dakota, only 26 are normal graduates, and in Idaho only 42, but in Utah 69. This proportion in Utah will undoubtedly increase rapidly, as under existing regulations of the State board of education none except normal graduates may enter the teaching profession.

Utah's standing among the 48 States is three ranks higher than North Dakota and eight ranks higher than Idaho with respect to the length of the school year, and with respect to the per cent of enrollment which is in average daily attendance Utah is nine ranks higher than North Dakota and 26 ranks higher than Idaho.

It is only in respect to annual expenditures per child in average daily attendance and valuation of school property per child enrolled that Utah is outclassed by Idaho and North Dakota. Whereas North Dakota by an exceedingly great effort expended \$116 per child in average daily attendance and Idaho \$101, Utah spends only \$85. Utah's investment in school property per child enrolled is \$3 less than Idaho's and \$48 less than North Dakota's.

#### THESE HIGH RANKS ARE MISLEADING

Tables 1 and 2 and the paragraphs accompanying each indicate, first, that in her efforts to provide school revenues, as compared with her ability, Utah far outstrips the great majority of our States; second, that her average achievements in many fields of education endeavor surpass not only States with whom it would seem fair to compare her but many other States which far exceed her in ability to support schools. It would, however, be a fatal error to infer from these relatively high averages that school conditions in Utah are all that can be reasonably desired or sought. Averages are always misleading and always tend to hide actual conditions. If five men are hungry and you provide one with a banquet costing \$4, two with a club luncheon costing 50 cents each, and two with a bowl of soup costing 5 cents each, and then compute the average expenditure for food, you will find that you have spent \$1.02 per man, and the average will look exceedingly satisfactory on paper, but an



investigation of the condition of the five hungry men whom you have fed will show that one has gorged himself, two have had only a fair meal, and two others are still in a starving condition.

To be informed that the average annual salary of teachers in 1925 was \$1,120 is likely to convey the impression that Utah teachers are not only among the best paid in the Union, but that any teacher employed in Utah schools has an average chance of receiving \$1,120 per year. Were this the true situation teachers' salaries in Utah would seem in a fair way to be comparable to those paid by such a State as California, where it is asserted on good authority that practically no teacher in the State receives less than \$1,200 per year. In the case of Utah, the facts are that one-fourth of the women teachers in the elementary rural schools receive annual salaries of \$700 or less, and that in Wayne district the average annual salary of such teachers was only \$517.

Table 1 has indicated that in 1924 Utah spent \$85 per pupil in average daily attendance. Contrast this with the fact that in 1925 many districts spent little in excess of \$50. While Jordan district spent \$118 for the education of each child in average daily attendance, Garfield spent only \$49. It is evident that \$85 represents the expenditure for the education of many children in Utah almost as inaccurately as the average expenditure of \$1.02 per man represented the actual expenditure for each of the five hungry men in the illustration given above. Many other facts might be cited to show that the educational facilities provided by Utah for many of her children are far from satisfactory. Replies received from 35 districts in answer to an inquiry sent out by the survey commission in June indicate that the building needs of 26 districts would require an expenditure of \$3,387,000. These replies indicate that of this sum \$1,264,000 could be raised by taxation, leaving \$2,123,000 which must be raised by incurring additional bonded indebtedness.

In some districts so large a part of the moneys raised by taxation must be used for debt service that little is left to maintain schools. In 1923 Iron levied a total school tax of 10 mills. Of this total levy 6.4 mills were for interest on indebtedness and for the sinking fund, leaving only 3.6 mills for supporting the school. (Statement, June 3, 1926, by Roscoe E. Hammond, secretary of Utah State Equalization Board.)

As long as any district depends upon tuition fees, the State of Utah must face the fact that education is neither democratic nor free. Yet for years this condition has existed and still exists in Emery district. This district maintains four high schools eight months each. For the past three years these schools have been maintained as free schools for only four months. During the remaining



four months they are maintained from proceeds of tuition fees varying from \$18 in the Green River High School to approximately \$25 in the three remaining high schools. In each town there is a tuition committee responsible for collecting the tuition fees.

Utah, in common with all other States, provides that no public moneys shall be allotted to private or sectarian schools. Yet one district at least, Washington, depends upon a sectarian institution to provide a part of the secondary education of her children.

Washington district maintains a three-year high school at Hurricane, a two-year high school at Toquerville, a two-year high school at St. George, and a two-year high school at Enterprise. These schools are necessary, as they are too far apart to permit the transportation of pupils. The pupils from all these four incomplete high schools depend for the last years of their education upon Dixie College, a church school at St. George. This college maintains two years of high school and two years of college work.

In many districts large numbers of children of high-school age still remain out of school. In a group of seven districts studied it was found that 64 per cent of such children were not in school and were not legally excused. In one district approximately 75 per cent of the children of high-school age were not in school and were not excused.

A subsequent portion of this report will present in detail an account of the great inequalities in educational opportunity provided by the various school districts of the State. Let us now turn to the questions with which the present report is most immediately concerned, namely:

How much money is Utah spending for her public elementary schools and high schools?

Are these expenditures excessive?

Are they likely to increase or decrease?

Are Utah's expenditures wisely distributed?

Are the funds provided for financing public schools at the present time adequate?

Is Utah employing the best possible method of financing her schools?

Are the sources of revenue she employs the best possible?

Is the burden of school support distributed in the wisest and most equitable manner possible?

Is the State assuming too great or too little responsibility with respect to the financing of the schools?

Are State funds distributed in the most scientific and most effective manner?

What modifications, if any, should be made in Utah's present methods of financing her schools?

## INCREASE AND DISTRIBUTION OF SCHOOL COSTS

## MERITS OF THE PRESENT SYSTEM

*The outlook for school costs in Utah.*—In 1913 Utah spent for all purposes connected with maintaining, operating, and expanding her public elementary schools and high schools slightly more than \$4,000,000 and in 1925 slightly less than \$10,000,000, the exact increase being 138 per cent. That is to say, for every dollar Utah spent on public schools in 1913 she spent \$2.38 in 1925. Her total expenditure for each pupil in average daily attendance amounted in 1913 to approximately \$54 and in 1925 to \$85. For every dollar spent per pupil in average daily attendance in 1913 Utah spent \$1.57 in 1925.

Are Utah's expenditures for public schools excessive? Are they likely to increase or decrease? The answer to these questions will have to be based upon two general considerations—first, past tendencies; second, whether the reasons which explain the growth in school costs are valid reasons and are likely to continue.

## WHY SCHOOL COSTS HAVE INCREASED

The three most important reasons why school costs have increased in Utah are: First, because the school population and the number of children attending school have greatly increased; second, because the number of teachers required has increased; third, because the purchasing power of the dollar has declined and consequently all public costs as measured in the actual number of dollars paid have greatly increased.

It is evident that any marked increase in the number of children a State is educating will necessarily result in a marked increase in school expenditures. Another factor of great importance which must be borne in mind is that it costs from two to two and a half times as much per year to educate a high-school pupil as to educate an elementary-school pupil. The reasons for this fact are to be found in the higher qualifications required of high-school teachers and the consequently higher salaries paid, together with the more expensive equipment required by high schools due to the provision of laboratories and shops. It follows that any large and sudden increase in high-school attendance will result in a large and sudden increase in total school expenditures.

In 1913 only 67 children out of every 100 included in the school census of Utah were in average daily attendance, and in 1919 the number had fallen to 65. Then came the legislation of 1919, with the result that 76 children out of every 100 included in the school census in 1920 were in average daily attendance, and 81 out of every



100 in 1925. More specifically, there were only 76,659 children in average daily attendance in Utah's elementary schools and high schools in 1913, whereas in 1925 there were 113,125, an increase of 47.5 per cent. Again, in 1913 less than 4 pupils (3.9 per cent of the enrollment) out of every 100 enrolled were in high school (grades 9-12), whereas 18 pupils out of every 100 enrolled in 1925 were in high school.

In 1913 it required the full time of only 2,604 teachers (including school principals) to provide instruction for the children in Utah's public schools. In 1925 it required 4,257 teachers, an increase of 63.5 per cent. The average annual salary paid to teachers was \$633 in 1913, \$1,120 in 1925. This higher average salary in 1925 was due in part to the decline in the purchasing power of the dollar, a factor which it is evident must be reckoned with in any consideration of increases in public expenditures and which will be dwelt upon in a subsequent paragraph. Here, however, it is necessary to note that according to the statistics of the United States Bureau of Labor it required \$1.57 in 1925 to purchase what \$1 would have bought in 1913. Applying this standard to the average teacher's salary of 1925, we find that the \$1,120 when expressed in terms of the purchasing power of 1913 dollars shrinks to the modest sum of \$711, which is only \$78 more than the average salary paid in 1913. Moreover, the proportion of teachers who were employed in high school and who were consequently receiving salaries greatly in excess of those paid in elementary schools was far larger in 1925 than in 1913, a fact which plays an important part in the increase of the average annual salary of all teachers.

Table 4 shows the growth in school population, enrollment, and average daily attendance in 1913, 1919, 1920, and 1925.

TABLE 4.—Growth in Utah school population, enrollment, and average daily attendance, 1913-1925

Year	School population 6-18 years	Total enrolled full time	Enrollment in high school		Average daily attendance	Per cent of school population in average daily attendance	
			Number	Per cent of total enrollment		Per cent	Increase or decrease over 1913
1912-13	114,588	94,743	3,711	3.9	76,659	67	
1918-19	134,887	109,449	10,360	9.5	88,090	65	-2
1919-20	128,846	117,406	14,130	12.1	97,745	76	+9
1924-25	139,457	135,992	24,835	18.3	113,125	81	+14

Perhaps the most important of all causes of increased school costs and one which outweighs all others, not only individually but in the aggregate, is the decrease in the purchasing power of the dollar. A recent publication of the National Education Association explains this factor so clearly and briefly that we may well quote it at this point, taking the liberty to change 1923 to 1925 in the last two sentences quoted. Thus modified the statement reads:

A statement of sums spent annually for any purpose extending over the last 10 years is deceiving if interpreted without considering the fluctuation in the value of the dollar. The pre-war mark and ruble had real purchasing power. The rubles and marks of 1923 were still rubles and marks, but they had no purchasing power. The franc retains but a fraction of its pre-war purchasing power. No one would think of directly comparing the 1913 ruble, mark, or franc with the ruble, mark, or franc of 1923. The dollar has also depreciated in value sufficiently to make unsound any comparison of 1913 and 1925 dollars. Only in name does the expenditure of a million dollars in 1925 mean the same as the expenditure of a million dollars in 1913.

On the basis of a nation-wide study of what can be bought each year, for a given sum of money in the way of food, clothing, shelter, fuel, light, furniture, and miscellaneous articles, the United States Bureau of Labor Statistics constructs what is known as an index of the cost of living. This index is applied in determining the purchasing power of a dollar from year to year and when applied to any expenditure will show what such expenditure amounts to in terms of 1913 dollars. Table 5 shows for the years 1913, 1919, 1920, and 1925 (1) the index of the cost of living as computed by the United States Bureau of Labor Statistics, (2) the purchasing power of a dollar, (3) the total current school costs, (4) the expenditure for current costs per pupil in average daily attendance, and (5) teachers' average salaries. For each of the above four years, these five classes of costs are stated first in terms of dollars paid and then in terms of 1913 dollars. The validity of using this index as a basis is supported by the fact that it has been used in many National, State, and municipal conferences between labor and capital and by arbitration boards in the adjustment of wages. Similar indexes have been constructed and are employed by Great Britain and other foreign powers.

Figures 28 and 29 show, respectively, the increase in Utah total current school costs and the increase in cost per child in average daily attendance as expressed, first, in the dollars actually paid, and second, in terms of 1913 dollars. It must be borne in mind that the amounts presented here and wherever else (e. g., Table 5) current costs are stated do not include expenditures for new buildings, ~~sites,~~ and debt service.



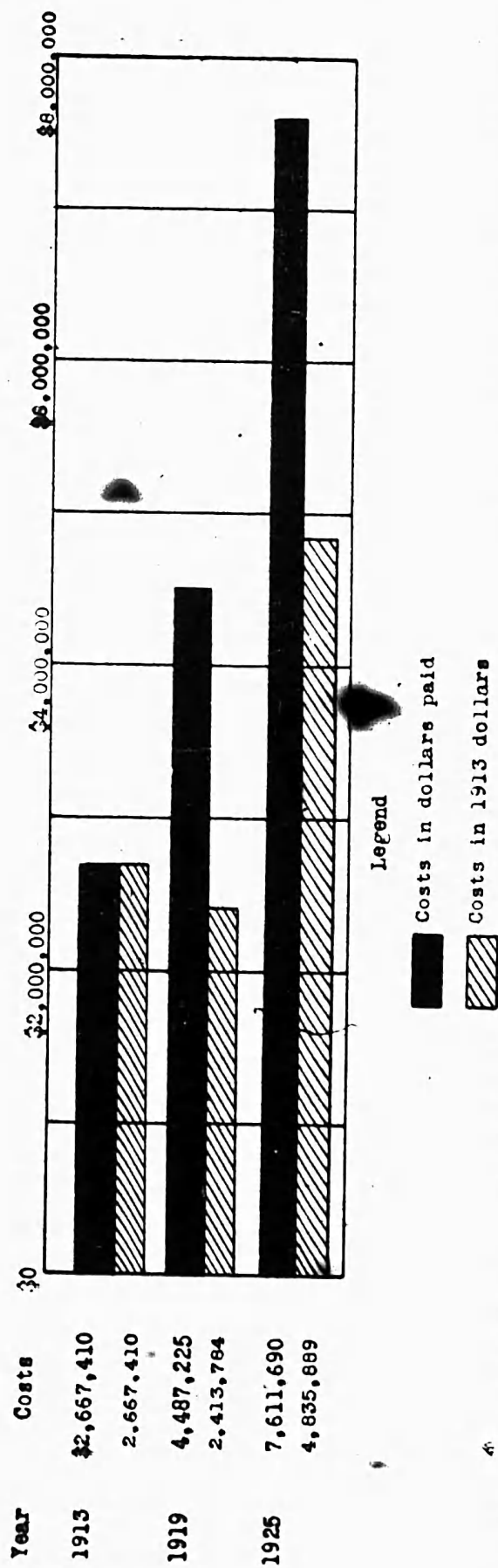


FIG. 28.—Increase in total current costs, 1913 to 1925, shown in dollars paid and in 1913 dollars. Does not include capital outlay and debt service.

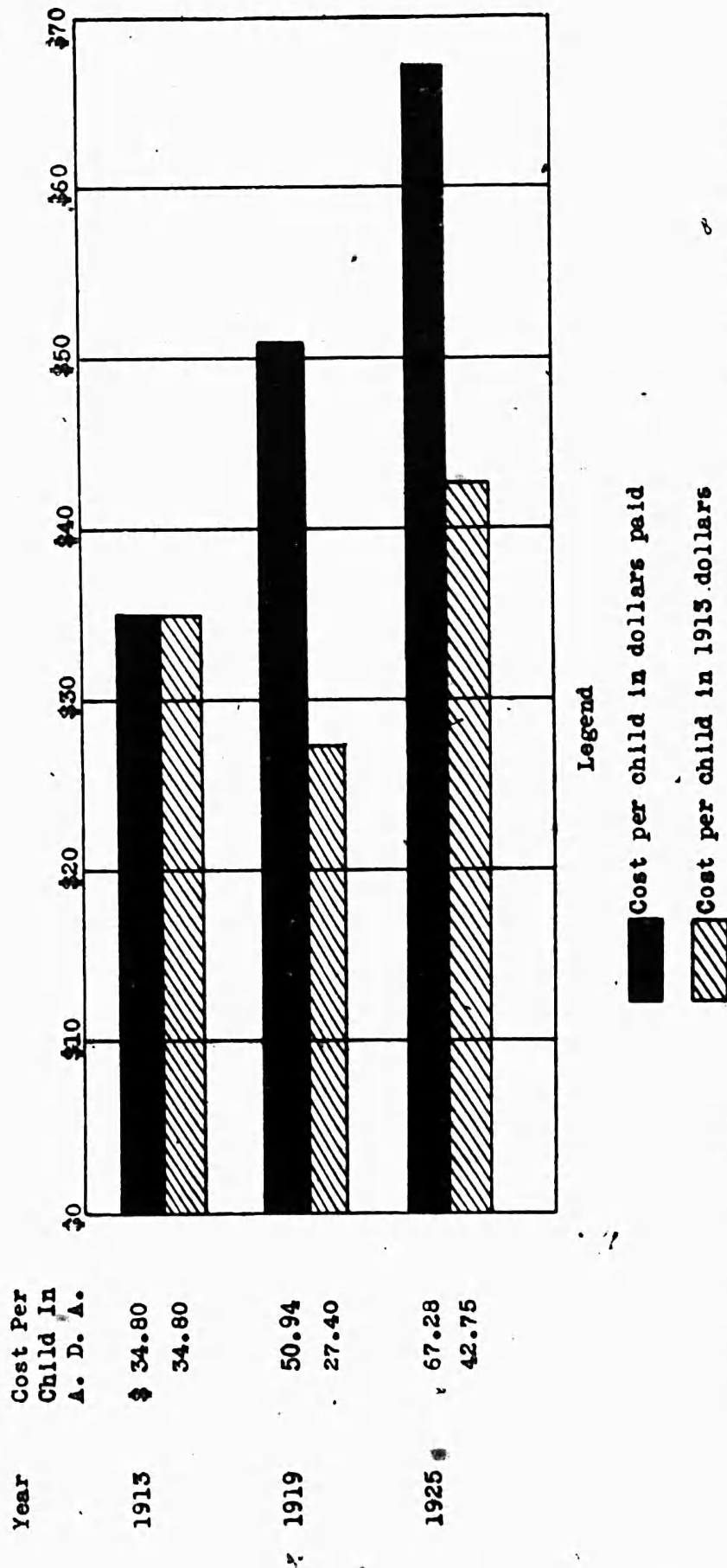


FIG. 29.—Growth of current school expenditure per child in average daily attendance; shown in dollars paid and in 1913 dollars



TABLE 5.—*Current school costs in Utah, 1913-1925*<sup>1</sup>

[Expressed in dollars paid and in terms of 1913 dollars]

Year	Index of cost of living	Purchasing power of dollar	Current costs <sup>1</sup>				Teachers average annual salary	
			Total		Per pupil in average daily attendance		Dollars paid	In 1913 dollars
			Dollars paid	In 1913 dollars	Dollars paid	In 1913 dollars		
1913.....	100	\$1.00	\$2,667,410	\$2,667,410	\$34.80	\$34.80	\$933.00	\$933.00
1919.....	199	.504	4,487,225	2,254,887	50.94	25.50	826.14	415.15
1920.....	200	.50	5,893,032	2,946,516	60.77	30.39	992.00	496.00
1925.....	157.4	.634	7,611,690	4,835,889	67.28	42.75	1,120.00	711.00
Per cent of increase 1925 over 1913.....			185	81	93	23	77	12+

<sup>1</sup> All costs except capital outlay and debt service.

From Table 5 we see that, whereas in dollars paid Utah was spending 185 per cent more in 1925 than in 1913, in terms of 1913 dollars her expenditure in 1925 was only 81 per cent greater than in 1913. In like manner her expenditure per pupil in average daily attendance measured in dollars paid was 93 per cent greater in 1925 than in 1913, but measured in terms of 1913 dollars was only 23 per cent greater. The average annual salary paid to teachers was 77 per cent greater in 1925 than in 1913 in actual dollars paid, but in purchasing power was only 12 per cent greater. From the facts just presented and in view of the important changes taking place between 1913 and 1925, namely, an increase of approximately 25,000 children in the school population, an increase of 47.5 per cent in school attendance, and an increase of 56.9 per cent in high-school enrollment and 63.5 per cent in the number of teachers employed, it can scarcely be doubted that the increases in school costs which are shown were not only justifiable but inevitable. Having considered in this general way the growth of school costs in Utah and the reasons for the same, the question now arises are school expenditures wisely distributed. Table 6 presents for the State as a whole an analysis by amounts of the expenditures for the year 1913 and for each fourth year thereafter, namely, the years 1917, 1921, and 1925. Table 7, by a percentage analysis of these expenditures, shows how they are distributed.

TABLE 6.—*Annual expenditure for public elementary schools and high schools in Utah, 1913-1925*<sup>1</sup>

Year	Total current costs <sup>2</sup>	Buildings, sites, equipment	Total current costs and buildings, sites, and equipment	Debt service		Grand total	Cost of pupil in average daily attendance
				Notes and bonds redeemed	Interest paid		
1912-13.....	\$2,889,207.35	\$965,878.21	\$3,855,085.56	\$144,492.03	\$170,253.17	\$4,169,831.66	\$53.74
1916-17.....	3,601,863.38	849,046.03	4,450,909.41	183,027.72	258,953.22	4,892,890.35	60.74
1920-21.....	7,106,574.47	3,024,391.87	10,130,966.34	190,160.68	438,039.74	10,759,166.76	72.29
1924-25.....	7,581,319.26	1,222,913.70	8,804,232.96	415,194.89	500,344.52	9,719,772.37	84.64

<sup>1</sup> Data segregated and compiled from the biennial reports of the State superintendent.

<sup>2</sup> Includes instruction, general control, maintenance, operation, fixed charges, auxiliary agencies, and all other current costs. Utah reports use the term "Operation and operating expenditures" to designate all current costs other than instruction.

TABLE 7.—*Percentage analysis of Utah school expenditures, 1913-25*

Year	Total current costs	Capital outlay buildings, sites, equipment	Debt service			Total
			Notes and bonds redeemed	Interest paid	Total	
1913 <sup>1</sup> .....	69.5	23.1	3.4	4.0	7.4	100
1917.....	73.6	17.3	3.7	5.3	9.0	100
1921.....	66.0	28.1	1.8	4.0	5.8	100
1925.....	78.0	12.6	4.3	5.1	9.4	100

<sup>1</sup> I. e., 1912-13.

From Table 7 we see that in 1913 over 23 per cent of school moneys were spent on new buildings, sites, and equipment, and in 1921 more than 28 per cent of school moneys were devoted to these same projects. It is generally agreed that from 18 to 20 per cent is as large a proportion of school revenue as should be devoted to buildings and other projects included within the term "capital outlays." It is evident, however, that the amount of funds devoted to building programs will necessarily vary from year to year and that the only sound basis on which to judge whether the proportion of school revenue devoted to this or any other function is a basis based upon the distribution of expenditures for a number of years. In the case of Utah, the percentage of expenditures devoted to capital outlays, taking alternate years from 1913 to 1925, was as follows: 1913, 23.1; 1915, 16.4; 1917, 17.4; 1919, 16.6; 1921, 21.8; 1923, 17.4; 1925, 12.3; the average, 18.8. It is evident from the facts just cited that 1913 and 1921 represent exceptional years with respect to building programs. Two causes explain the situation in 1921: First, the fact that throughout the country generally during the war period building programs were very much curtailed; second, the adoption by Utah in 1919 of the legislative program already described, which resulted in a great increase in enrollment in the year 1920 and the following years.



It will be seen, moreover, that the average annual per cent of total expenditures which is devoted to school buildings and sites—namely, 18.8 per cent—is quite in harmony with the standard already indicated as normal.

Owing to the variations from year to year in the amounts expended for new buildings, new sites, and debt service, it seemed best to supplement our analysis of total school expenditures by an analysis of current school expenditures, by which are meant expenditures for all annual costs except buildings, sites, and debt service. It has long been accepted that from 70 to 75 per cent of current school expenditures should be devoted to costs of instruction. Maryland, which, like Utah, is largely an agricultural State, provides that the district-school budget, which the State guarantees to equalize, shall be based upon teachers' salary costs, and that the total budget of a district shall be computed on the basis that salary costs shall constitute 76 per cent of total current costs.

An analysis of Utah's public-school expenditures for 20 years—namely, from 1906 to 1925—revealed the following average percentage distribution: Current costs, 73 per cent; capital outlay, 20 per cent; debt service, 7 per cent.

An analysis of current school costs alone for the same period revealed the fact that the proportion devoted to instructional costs varied from approximately 61 per cent (60.8 per cent) in 1906 to 75 per cent in 1925, with an average of 69 per cent for the 20 years. Table 8 presents a percentage analysis of current school costs for the period 1906–1925, inclusive, showing the percentage of current school costs devoted to purposes of instruction and the percentage devoted to all other current costs, namely, general control, operation, and maintenance.

TABLE 8.—Comparison of percentage of Utah current school costs devoted to instruction with percentage devoted to all other current school costs, 1906–1925

Year	Per cent devoted to—			Year	Per cent devoted to—		
	Instruction	All other current costs	Total		Instruction	All other current costs	Total
1906.....	60.8	39.1	100	1918.....	71.9	28.1	100
1907.....	67.6	32.4	100	1919.....	(1)	(1)	(1)
1908.....	66.1	33.9	100	1920.....	71.5	28.5	100
1909.....	68.9	31.1	100	1921.....	(1)	(1)	(1)
1910.....	66.4	33.6	100	1922.....	74.8	25.2	100
1911.....	64.6	35.4	100	1923.....	73.9	26.1	100
1912.....	63.3	36.7	100	1924.....	75.5	24.5	100
1913.....	66.2	33.8	100	1925.....	75.1	24.9	100
1914.....	65.0	34.0	100				
1915.....	64.2	35.8	100	Average for 20			
1916.....	72.4	27.6	100	years.....	68.9	31.1	100
1917.....	71.3	28.7	100				

<sup>1</sup> Form in which data were submitted for this year makes it impossible to segregate costs of instruction from other current costs.

If we accept as our standard that 75 per cent of current school costs should be devoted to teachers' salaries, it would appear that during the last 20 years Utah has expended too small a proportion of her current school revenue and too large a proportion for other items.

It is of interest to note that in every year since 1916 over 71 per cent of Utah's current school costs have been devoted to instructional costs. The tendency to devote a larger percentage of school revenue to instructional purposes has been particularly marked during the last four years, varying from 73.9 per cent to 75.5 per cent.

In order to ascertain more definitely how school expenditures are distributed an extensive study was made of eight school districts, selected on the basis of their rank in assessed valuation per school census child 6 to 18 years of age. The districts chosen for this purpose were Jordan, Park City, Grand, Wasatch, Iron, Wayne, Garfield, and Washington. Table 9 shows for each of these districts its total current expenditure in 1925 for each pupil in average daily attendance and the amount and per cent devoted to costs of instruction and to all other current costs, to debt service, and to capital outlay.

TABLE 9.—PART I.—*Distribution of annual school expenditure per pupil in average daily attendance in eight Utah school districts, 1924-25*

District	Total cost average daily attendance	Current cost		Debt service	Capital outlay
		Instruction	All other		
Jordan	\$118.05	\$56.05	\$22.79	\$5.88	\$33.33
Park City	100.45	46.14	26.33	26.69	1.29
Grand	103.00	64.77	32.09	1.28	4.86
Wasatch	74.14	47.74	18.87	7.10	.43
Iron	84.71	45.96	19.02	17.48	2.25
Wayne	52.47	33.70	14.07	2.79	.91
Garfield	49.18	34.27	8.04	6.87	
Washington	57.67	35.67	9.98	6.43	5.59

TABLE 9.—PART II.—*Percentage analysis of total annual school expenditure per pupil in average daily attendance*

District	Current costs			Capital outlay	Total
	Instruction	All other	Debt service		
	Per cent	Per cent	Per cent	Per cent	Per cent
Jordan	47.48	19.31	4.98	28.23	100
Park City	45.93	26.21	26.57	1.29	100
Grand	62.88	31.16	1.24	4.72	100
Wasatch	64.39	25.45	9.58	.58	100
Iron	54.26	22.45	20.63	2.66	100
Wayne	64.23	26.81	5.32	3.64	100
Garfield	69.69	16.35	13.96		100
Washington	61.85	17.31	11.15	9.69	100



From Table 9 we see that in 1925 the distribution of school moneys varied greatly among the eight districts selected. In Park City nearly 27 per cent of school costs were devoted to debt service and slightly more than  $1\frac{1}{4}$  per cent to capital outlay. In Jordan, on the other hand, over 28 per cent was devoted to capital outlay and approximately only 5 per cent to debt service. Iron shows a situation somewhat similar to that of Park City, devoting nearly 21 per cent of its revenue to debt service and slightly less than 3 per cent to capital outlay.

It is impossible in the case of Utah school districts to reach any satisfactory conclusions regarding expenditures for capital outlay and for debt service for a number of reasons. In the first place, the moneys received from the sale of bonds issued for the purpose of purchasing school sites or the erection and equipment of school buildings are charged to capital outlay at the time they are expended for such sites or buildings. In the following years, as moneys are collected for a sinking fund to redeem the above bonds and as the bonds themselves are redeemed, these moneys are charged to debt service. In this way the schools are charged twice for the same items; first as capital outlay and then later as debt service. In connection with such transactions the only moneys which should really be charged as debt service are the moneys provided and paid out for the interest on bonds.

The schools are also credited twice for the same moneys in the account of receipts. Bond proceeds when received from the sale of bonds and paid into the treasury are credited as nonrevenue receipts. In the following years a tax is levied to pay the interest on the bonds, to create a sinking fund for the redemption of the bonds, or to redeem a certain number of bonds falling due in any given year. The proceeds of such taxes are credited to the schools in the later case as revenue receipts.

From the above paragraph we see that the important question arises: How can we tell how much the schools are costing from year to year for capital outlay and for debt service, and how often are they credited twice for the same receipts, first as nonrevenue receipts (proceeds of bond sales) and then as revenue receipts (proceeds of taxes to redeem bonds)? The answer is, we can not tell. It is obvious there is a distinct need for a change in Utah's system of school financial accounting.

There are a number of reasons, in addition to those given in the immediately preceding paragraphs, which make it necessary in attempting to compare school districts with respect to their annual expenditures per child in average daily attendance to exclude costs for capital outlay and debt service. The most important of these



reasons is the fact that expenditures for capital outlay, which consist chiefly of expenditures for school buildings and sites, represent investments the benefits of which extend over a long period of years. It follows that in comparing districts for any particular year we shall have certain districts whose proportion of total expenditures for that year devoted to capital outlay is very large, owing to the fact that they are engaged in an ambitious building program. It would be obviously unsound to attempt to compare the expenditures and the distribution of expenditures of such a district or districts with districts which had no occasion to devote any large sums to capital outlay. Were it possible to extend our study of expenditures over a period of 20 years we should be justified in including costs for capital outlay and debt service, but a comparison of costs limited to one or even a few years must evidently exclude expenditures for capital outlay and confine itself in the main at least to expenditures for instruction and operation. These considerations must be borne in mind in studying the distribution of expenditures presented in Table 9.

Turning from this explanation to the data in Table 9 it will be seen that in 1925 nearly 27 per cent of school costs in Park City were devoted to debt service and slightly more than  $1\frac{1}{4}$  per cent to capital outlay. In Jordan, on the other hand, over 28 per cent was devoted to capital outlay and approximately only 5 per cent to debt service. Iron district shows a situation somewhat similar to that of Park City, devoting nearly 21 per cent of its revenue to debt service and slightly less than 3 per cent to capital outlay. If it be accepted as a standard that from 70 to 75 per cent of current school costs should be devoted to instruction purposes, it will be seen that in the year under consideration every district included in Table 9 was devoting a far smaller proportion of its expenditures to instruction costs than our standard would permit. Such a situation may be justified in the case of a few individual districts but can hardly be regarded as justifiable when it is found to prevail universally. In conclusion, therefore, it may be said that it appears that the schools of Utah are devoting too small a percentage of their revenues to teachers' salaries and too large a percentage to other items of expenditure. Such a situation may be the result of either of two conditions. If the prevailing salaries of teachers are low in a district, and the amount devoted to this function is therefore small in comparison with what it should be, it would be impossible for such a district to keep up with its building program without devoting an undue proportion of its total costs to capital outlays and to other functions. On the other hand, the situation may be the result of overbuilding or of extravagant expenditures for capital outlays



Which of these two causes is the explanation would have to be determined in the case of each district individually and would require a more intensive study of the situation than is possible in the present report.

In view of the reasons already set forth it was deemed advisable to make an extensive analysis of district annual costs, which should exclude expenditures for debt service and capital outlay. Such an analysis is printed in Table 10. The districts selected are those included in Table 9.

TABLE 10.—*Comparison of instructional costs per pupil with all other current costs in eight Utah school districts, 1924-25*

District	Amount			Per cent		
	Instruction	All other current costs	Total	Instruction	All other current costs	Total
Jordan	\$56.85	\$22.79	\$78.64	71.09	28.91	100
Park City	46.74	26.33	72.47	63.66	36.34	100
Grand	64.77	32.09	96.86	66.87	33.13	100
Wasatch	47.74	18.87	66.61	71.67	28.33	100
Iron	45.98	19.02	64.98	70.73	29.27	100
Wayne	33.70	14.07	47.77	70.55	29.45	100
Garfield	34.27	8.04	42.31	80.99	19.01	100
Washington	35.67	9.98	45.65	77.96	22.04	100

Many significant facts regarding the school situation in Utah are revealed by Table 10. The first of these is the wide variation in the amounts districts are expending for the education of the children intrusted to their care. In column 4 we see that, whereas Grand spent nearly \$97 per child in average daily attendance, Jordan nearly \$79, and Park City over \$72, Wayne, Washington, and Garfield each spent less than \$48 a year. Garfield, which devotes a larger percentage of her funds to instructional costs than any other district in the group (approximately 81 per cent) has the lowest total expenditure, namely, \$42, and spends next to the least amount per child for instruction. Grand, which has the highest total expenditure per child, devotes only 67 per cent of her current costs to instructional purposes and 33 per cent to other current costs. Summarizing this situation it is noted that the proportion of costs devoted to instructional purposes by these eight districts varies all the way from approximately 64 per cent (Park City) to approximately 81 per cent (Garfield).

#### ARE EXPENDITURES AND FUNDS ADEQUATE?

There are many evidences that the school funds provided at the present time are inadequate. Returns received from 30 school districts (three-fourths of the entire number in the State) estimated

that the cost of new sites and buildings needed would amount to \$4,180,241. These estimates were furnished by the district superintendents. Experience in other States, wherein such estimates have been submitted by school officials and then checked by a building survey conducted by experts brought from the outside, would seem to show that such an estimate may be regarded as at least 90 per cent correct; but at the very time when 30 school districts consider themselves to be in need of large funds for building, the cry is heard on every hand that the burdens of taxation and of bonds are already so heavy in most districts that any increase is viewed with alarm. In some districts it has been found necessary to employ unusual methods in order to secure adequate school revenues. In certain cases the elementary school year has been reduced to approximately seven months. In one district at least the high school has been maintained during the last months of the year largely from contributions of patrons. This, in reality, means tuition in addition to taxes. With these circumstances in mind let us now ask, Is Utah employing the best possible methods of financing her schools?

#### UTAH'S SYSTEM OF SCHOOL FINANCE

Utah's system of school finance is characterized by many outstanding features of great merit. Some of these have already been indicated. It is evident that the larger the taxing unit the more completely will school revenues and school burdens be equalized. The organization of the school system into 40 districts instead of into several hundred or thousand, as is commonly found in other States, not only greatly simplifies the problems of organization, administration, and support, but equalizes school revenues and school burdens.

Another merit of the Utah system is found in her method of providing State aid. Thirty-three States in the Union depend upon State tax to provide school revenues. In the great majority of cases the tax employed is a general property tax of a fixed rate. Where this policy is followed it is necessary to prorate the proceeds of the State tax each year, with the result that the districts never know how much aid per child they will receive from the State. As pointed out in an introductory paragraph, this was the method followed in Utah until the adoption of the constitutional amendment in the year 1920 which provided that thereafter the State shall levy a tax not of fixed rate but of a rate which shall be sufficient, together with the income of the State permanent school fund, to provide annually \$25 for each child included in the school census. Other features of the Utah system of school finance deserving of special commendation are the policy of requiring the levying of an annual



tax to create sinking funds for the redemption of school bonds, and her requirement of the submission for public consideration of the annual school budget.

Despite these and other meritorious features of the Utah system, there are many ways in which existing methods and policies of school support may be improved. Utah has undoubtedly much in the way of valuable example and sound practice to offer many other States. But that she can well learn from the experience of other States will be evident from the account of her policies and the results of these policies given in subsequent paragraphs.

#### INEQUALITIES RESULTING FROM UTAH'S PRESENT METHODS OF FINANCING SCHOOLS

The final test of Utah's system of school support must be found in its results. The acid test of democracy is equality. The foundation and the safeguard of democracy is equality of educational opportunity. Even approximate equality in education can never be attained in Utah or in any other State until school revenues and school burdens are equalized. The extent to which school revenues are equalized in any State where schools are supported even in part by districts or other local units will depend upon at least three things: (1) How widely the local units vary among themselves in ability to provide school revenues, i. e., in taxable wealth; (2) the comparative effort they make to provide revenue; (3) the extent to which the State through funds of its own evens out the inequalities existing among districts. Let us pause at this point to inquire briefly to what extent Utah's present system of school support equalizes school revenues, school burdens, and educational opportunities.

In order to discover the extent to which Utah's system of school finance equalizes educational opportunity, an intensive study was made of conditions in eight school districts. The districts studied were selected on a basis which precluded any possibility of the choice being influenced by personal bias or by any desire either to minimize or to exaggerate conditions. They were selected on the basis of their ability to provide school revenues as measured by the valuation of their taxable wealth per school child 6-18 years of age. On this basis there were chosen, out of Utah's 40 school districts, the 3 richest, the 3 poorest, and the 2 of middle rank. A future section of the present report will treat at length the divergence between assessed and true valuation. It will suffice here to state that, because assessed valuations vary widely from true valuations and because the percentage of true valuation which is represented by the assessed valuation also varies widely from district to district, it was deemed best to select for intensive study two different groups of districts.

The first group consists of eight districts selected on the basis of their assessed valuation per school child. The second group consists of districts selected on the basis of their true valuation. These two groups of districts, together with their valuations per child and their State ranks, are shown in Table 11.

TABLE 11.—Two groups of Utah districts selected for special study of educational and financial conditions

Group I			Group II		
District	Assessed valuation per child 6-18 years, 1924		District	Estimated true valuation per child 6-18 years, 1924	
	State rank	Amount		State rank	Amount
Jordan	1	\$9,404	Grand	1	\$15,448
Park City	2	9,012	Park City	2	14,775
Grand	3	8,496	Nebo	3	13,740
Wasatch	20	4,534	Beaver	20	8,445
Iron	21	4,478	Salt Lake	21	8,300
Wayne	38	1,625	Washington	38	3,064
Garfield	39	1,459	Wayne	39	2,956
Washington	40	1,409	Garfield	40	2,633

The answer to the question how far Utah's present system of school support equalizes educational opportunity is given briefly in Table 12 and in Figures 30 and 31.

TABLE 12.—Existing inequalities in educational opportunity provided by eight Utah school districts, 1924-25

[Districts arranged in order of assessed valuation per school census child, 6-18 years of age]

District	Assessed valuation per child, 6-18 years of age	Annual current expendi- ture <sup>1</sup> per child <sup>2</sup>	Value of school property per child <sup>3</sup>	Number of children out of each 100 of school age who are not in school <sup>4</sup>	School year, days	Annual salary of women teachers in elementary schools	
						Average	Per cent receiving not more than \$70
Jordan	\$9,404	\$79	\$202	19	175	\$1,158	0
Park City	9,012	72	103	21	173	985	0
Grand	8,496	97	131	12	171	900	0
Wasatch	4,534	67	160	10	169	854	10
Iron	4,478	65	209	10	158	840	30
Wayne	1,625	48	152	23	133	517	( <sup>4</sup> )
Garfield	1,459	42	53	18	146	661	76
Washington	1,409	46	153	18	154	715	60

<sup>1</sup> Includes all costs except debt service and capital outlay.

<sup>2</sup> I. e., per child in average daily attendance.

<sup>3</sup> The number here given is the number of children out of each 100 children included in the school census, 6-18 years of age, who are not in average daily attendance.

<sup>4</sup> Not reported.

Table 12 shows in a striking manner how completely Utah's present system of school finance fails to equalize educational opportunity. If a child between 6 and 18 years of age lives in the



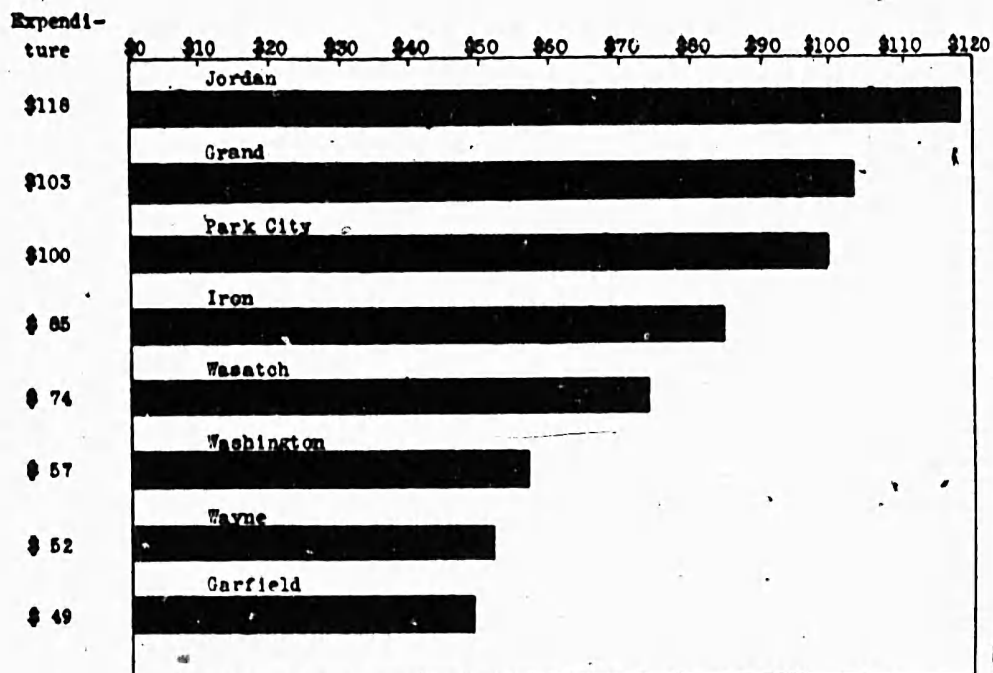


FIG. 30.—Annual current expenditure per child in average daily attendance in 8 school districts, 1924-25

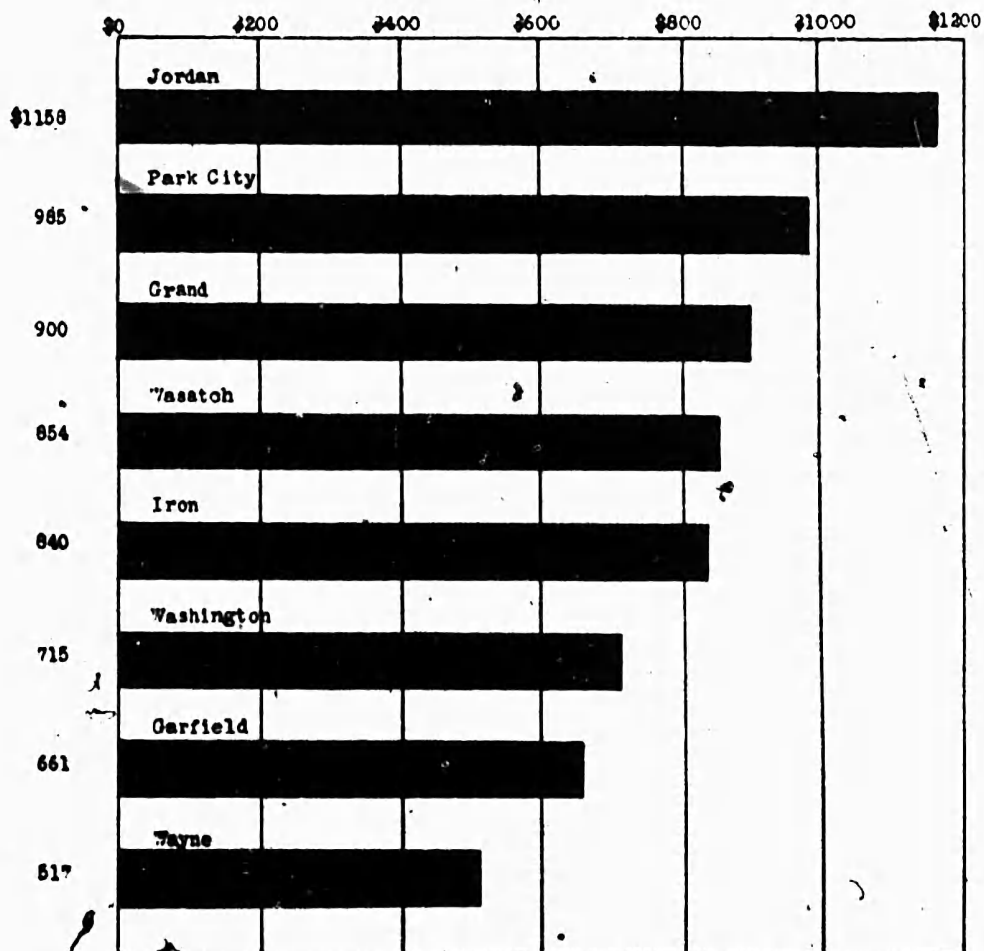


FIG. 31.—Annual salaries paid to women teachers in 8 rural districts, 1924-25

Wasatch or the Iron district, the chances are only 10 out of every 100 that he will not be in school on any particular school day (see column 5), but if he lives in Park City the chances are 21 out of every 100 that he will not be in school on any particular school day.

The children living in Jordan, Park City, or Grand district have the opportunity of attending school more than eight and a half months, and in the case of Jordan district nine months ~~lacking~~ one week, but children living in Garfield find the schools open to them only seven months one week and one day, and the children in Wayne only six months two weeks and three days.

Probably the factor which determines to a larger extent than any other one the kind of an opportunity a child will find awaiting him in school is the teacher. Admitting certain marked exceptions, it nevertheless remains true that the quality of the teacher will depend upon the salary paid, for in education as in other fields, personality, successful experience, and skill bring their own financial returns. From Table 12 we see that Jordan district provides, for children attending elementary schools, teachers who on the average are capable of commanding \$1,158 a year, whereas Grand provides teachers capable of commanding \$900 a year, Garfield \$661 a year, and Wayne \$517 per year. The first three districts included in Table 12 employ no teachers who can not command a salary of more than \$700 per year, whereas in Iron district 30 per cent of the teachers are receiving annual salaries of \$700 or less, in Washington 60 per cent, and in Garfield 76 per cent.

Perhaps one of the best indices of a child's chance to secure an education is the amount of money spent on his schooling. A comparison of the amount of money spent annually in various districts for each child attending school, together with the amount invested in school property, will throw much light upon the question of a child's educational opportunity in Utah and upon the question of the extent to which the educational opportunities provided by different districts are equal or unequal.

For every child in average daily attendance in Grand district the district spent \$97, whereas Wasatch spent only \$67 for each child in average daily attendance and Garfield \$42. It must be borne constantly in mind that these differences in expenditure represent differences in the educational provisions open to the children residing in these various districts. This statement finds further support in the facts presented in the fourth column of Table 12, which shows that the value of the school property per child varies all the way from over \$200 in the Iron and Jordan districts to \$53 in Garfield.

The inequalities in the educational opportunities provided by eight school districts have now been discussed. It may be well to conclude



this portion of the account by turning to conditions in the State as a whole.

Table 13 shows the average expenditure for costs of instruction and operation per pupil in average daily attendance for each of Utah's 40 school districts in the year 1925.

Table 14 presents a scale of the salaries paid 1,426 Utah teachers teaching in rural elementary schools in the year 1925 and indicates the number of teachers receiving each salary listed.

Table 15 presents a summary of the facts given in Table 14 by showing the range of salaries received by the lowest and by the highest paid 25 per cent and the middle 50 per cent of the teachers.

Table 16 shows for 29 districts the estimated total number of children of high-school age, the number and per cent of this total not in school, the number and per cent legally excused, and the number and per cent not legally excused.

In Table 17 these 29 districts are arranged in groups on the basis of the number of children not in school and not legally excused.

Space does not permit any discussion of Tables 13 to 17 inclusive, but the significance of the data they contain will be sufficiently clear to the reader from the discussion already given in connection with Table 12.

TABLE 13.—*District average expenditure for instruction and all other current school costs per pupil in average daily attendance, 1925*

Districts			Districts		
Rank	Name	Expenditure per pupil	Rank	Name	Expenditure per pupil
1	Grand.....	\$103.41	21	Murray.....	\$64.15
2	South Summit.....	102.73	22	Uintah.....	63.39
3	North Summit.....	101.51	23	Nebo.....	62.89
4	Tintic.....	96.47	24	Beaver.....	60.67
5	Tooele.....	87.07	25	North Sanpete.....	59.57
6	Morgan.....	84.56	26	Kane.....	59.14
7	Salt Lake City.....	76.90	27	Davis.....	58.81
8	Daggett.....	74.53	28	Cache.....	58.39
9	Weber.....	74.37	29	San Juan.....	57.51
10	Park City.....	73.77	30	Logan.....	56.64
11	Jordan.....	69.19	31	Sevier.....	56.63
12	Rich.....	68.69	32	Box Elder.....	55.96
13	Granite.....	67.94	33	Alpine.....	55.56
14	Wasatch.....	67.58	34	Duchesne.....	51.39
15	Plute.....	67.42	35	Emery.....	50.42
16	Millard.....	67.25	36	South Sanpete.....	50.35
17	Ogden.....	66.66	37	Provo.....	49.23
18	Iron.....	66.16	38	Wayne.....	46.82
19	Carbon.....	65.70	39	Garfield.....	46.78
20	Juab.....	64.69	40	Washington.....	45.51

Approximate median expenditure.....\$64.42  
Average expenditure.....67.28

TABLE 14.—*Utah teachers' salaries in elementary schools in county districts of the first class, 1925*<sup>1</sup>

Salary	Number of teachers receiving—		Total number	Salary	Number of teachers receiving—		Total number
	Women	Men			Women	Men	
\$350.....	1		1	\$1,250.....	26	15	41
\$400.....				\$1,300.....	23	8	31
\$450.....	10		10	\$1,350.....	20	7	27
\$500.....	7		7	\$1,400.....	18	5	23
\$550.....	33	1	34	\$1,450.....	5	4	9
\$600.....	60	2	62	\$1,500.....	8	2	10
\$650.....	85	2	87	\$1,550.....	6		6
\$700.....	130	7	137	\$1,600.....	10	2	12
\$750.....	70	7	77	\$1,650.....		1	1
\$800.....	138	8	146	\$1,700.....		2	2
\$850.....	115	12	127	\$1,750.....			
\$900.....	133	13	146	\$1,800.....		1	1
\$950.....	77	11	88	\$1,850.....			
\$1,000.....	90	27	117	\$1,900.....			
\$1,050.....	74	17	91	\$1,950.....			
\$1,100.....	46	20	66	\$2,000 or over.....		2	2
\$1,150.....	23	13	36				
\$1,200.....	29	20	49	Total.....	1,217	209	1,426

<sup>1</sup> Compiled from Tables 1 and 2, pp. 14 and 17, in Matthew F. Noall, "Some of the factors which influence teachers' salaries in the State of Utah," master of arts thesis, University of Utah, 1925 (unpublished manuscript).

TABLE 15.—*Summary of Table 14—Part I. Distribution of salaries, 1925*

Men			Women		
Scale	Number	Per cent	Scale	Number	Per cent
Not over \$900.....	52	25	Not over \$700.....	304	25
\$900 to \$1,200.....	105	50	\$700 to \$1,000.....	609	50
\$1,200 to \$2,000 <sup>1</sup> .....	52	25	\$1,000 to \$1,600.....	304	25

<sup>1</sup> 2 salaries exceed \$2,000 per year.

TABLE 15.—*Summary of Table 14—Part II. Distribution analysis of lowest 25 per cent of salaries, 1925*

Men		Women	
Scale	Number	Scale	Number
\$550.....	1	\$350.....	1
\$600.....	2	\$400.....	
\$650.....	2	\$450.....	10
\$700.....	7	\$500.....	7
\$750.....	7	\$550.....	33
\$800.....	8	\$600.....	60
\$850.....	12	\$650.....	85
\$900.....	13	\$700.....	130



TABLE 16.—*Utah children of high-school age, 14-18 years, not in school, in 29 districts, 1924-25*

District	Children of high-school age				Children not in school			
	Estimated total number	Not in school		Per cent of column 2	Legally excused		Not legally excused	
		Number	Per cent of column 2		Number	Per cent of column 3	Number	Per cent of column 3
1	2	3	4	5	6	7	8	9
Alpine.....	1,626	196	12.1	81	41.4	115	58.6	
Box Elder.....	1,957	139	7.1	238	51.8	221	48.2	
Cache.....	1,827	341	18.7	122	35.8	219	64.2	
Davis.....	1,277	316	24.8	119	37.6	197	62.4	
Duchesne.....	840	117	13.9	41	35.0	76	65.0	
Garfield.....	318	32	10.2	19	59.5	13	40.5	
Grand.....	179	64	35.8	57	89.1	7	10.9	
Granite.....	2,400	375	15.6	145	38.9	230	61.1	
Jordan.....	1,735	352	20.3	139	39.5	213	60.5	
Juab.....	429	114	26.6	52	45.7	62	54.3	
Millard.....	1,174	338	28.8	194	57.4	144	42.6	
Morgan.....	254	65	25.6	21	32.4	44	67.6	
Nebo.....	1,809	383	21.2	176	46.0	207	54.0	
North Sanpete.....	925	297	32.1	186	62.6	111	37.4	
North Summit.....	258	96	37.3	77	80.3	19	19.7	
Park City.....	325	74	22.8	51	69.0	23	31.0	
San Juan.....	311	95	30.6	89	93.7	6	6.3	
Sevier.....	1,211	194	16.0	85	43.9	109	56.1	
South Sanpete.....	853	118	13.7	72	61.1	46	38.9	
South Summit.....	176	50	28.4	35	70.0	15	30.0	
Tintie.....	503	21	4.2	17	81.0	4	19.0	
Tooele.....	727	233	32.1	59	25.3	174	74.7	
Wasatch.....	544	79	14.6	39	49.4	40	50.6	
Washington.....	738	183	24.8	126	68.9	57	31.1	
Wayne.....	234	32	13.7	14	43.8	18	56.2	
Weber.....	1,202	296	24.6	154	52.1	142	47.9	
Provo.....	1,297	241	18.6	75	31.1	166	68.9	
Logan.....	1,067	144	13.5	82	56.9	62	43.1	
Murray.....	499	222	44.5	137	61.7	85	38.3	

<sup>1</sup> Estimated on the assumption that children 14-18 constitute one-third school census; this is in harmony with the practice followed by Ayres, see Leonard P. Ayres, *An Index Number for State School Systems*, p. 17.

TABLE 17.—*Utah children of high-school age, 14-18 years, in 29 districts not in school and per cent of same not legally excused, 1924-25*

Group and number of districts	Districts	Total number of children in group not in school	Per cent not legally excused		Average per cent for districts in group
			Range for group per cent		
Group I (1 district.)	San Juan	95	Less than 10		6.3
Group II (3 districts.)	Grand Tintie	181	10-20		16.3
	North Summit				
	South Summit				
Group III (5 districts.)	Park City	826	30-40		34.5
	Washington				
	North Sanpete				
	Murray				
	Garfield				
Group IV (5 districts.)	Millard	1,269	{ 50-100 More than 40 but less than 50		44.4
	Logan				
	Weber				
	Box Elder				

TABLE 17.—*Utah children of high-school age, 14-18 years, in 29 districts not in school and per cent of same not legally excused, 1924-25—Continued*

Group and number of districts	Districts	Total number of children in group not in school	Per cent not legally excused	
			Range for group per cent	Average per cent for districts in group
Group V (7 districts)	Wasatch Nebo Jordani South Sanpete Seyler Wayne Alpine Jordan Cache	1,119	60-70 More than 50 but less than 60	55.1
Group VI (7 districts)	Davis Granite Duchesne Morgan Provo	1,807	More than 60 but less than 70	64.1
Group VII (1 district)	Tooele	233	More than 70 but less than 80	74.7

## THE CAUSES OF EDUCATIONAL INEQUALITIES

Inequalities in ability, inequalities in school burdens, inequalities in effort, and inequalities in the aid received from the State—these may be said to be the most important causes of the educational inequalities described in the preceding paragraphs. A moment's consideration will show that viewed from the financial standpoint the weight of the school burden of a community depends upon at least five factors: (1) The number of children it must educate; (2) the amount of its taxable wealth; (3) the amount of its outstanding indebtedness; (4) the amount of money it spends; and (5) the aid it receives from the State. It is generally assumed that wealth per child in average daily attendance is a better index of a community's ability to provide revenues for its schools than wealth per school census child. But we have already seen that in Utah a considerable number of children of school age, 6-18 years, are not in attendance, and that the percentage of nonattendance varies greatly from district to district (see above Tables 3, 12, 16, 17). Moreover, Utah distributes her State aid on the school census basis, and her citizens are accustomed to think in terms of school census rather than in terms of average daily attendance. For these reasons it has been deemed best to employ wealth per school census child as a measure of financial ability, and bonded indebtedness per school census child as a measure of obligation. In matters of cost, however, we shall employ expenditure per child in average daily attendance as our measure.



Just as inequalities in wealth per school census child represent inequalities in ability to provide school revenues, so inequalities in rate of taxes levied represent inequalities in effort; and inequalities in State aid are obviously inequalities in assistance received.

#### INEQUALITIES IN FINANCIAL ABILITY

Five districts in the State—namely, Jordan, Park City, Tooele, Grand, and North Summit—have over \$8,000 of assessed valuation

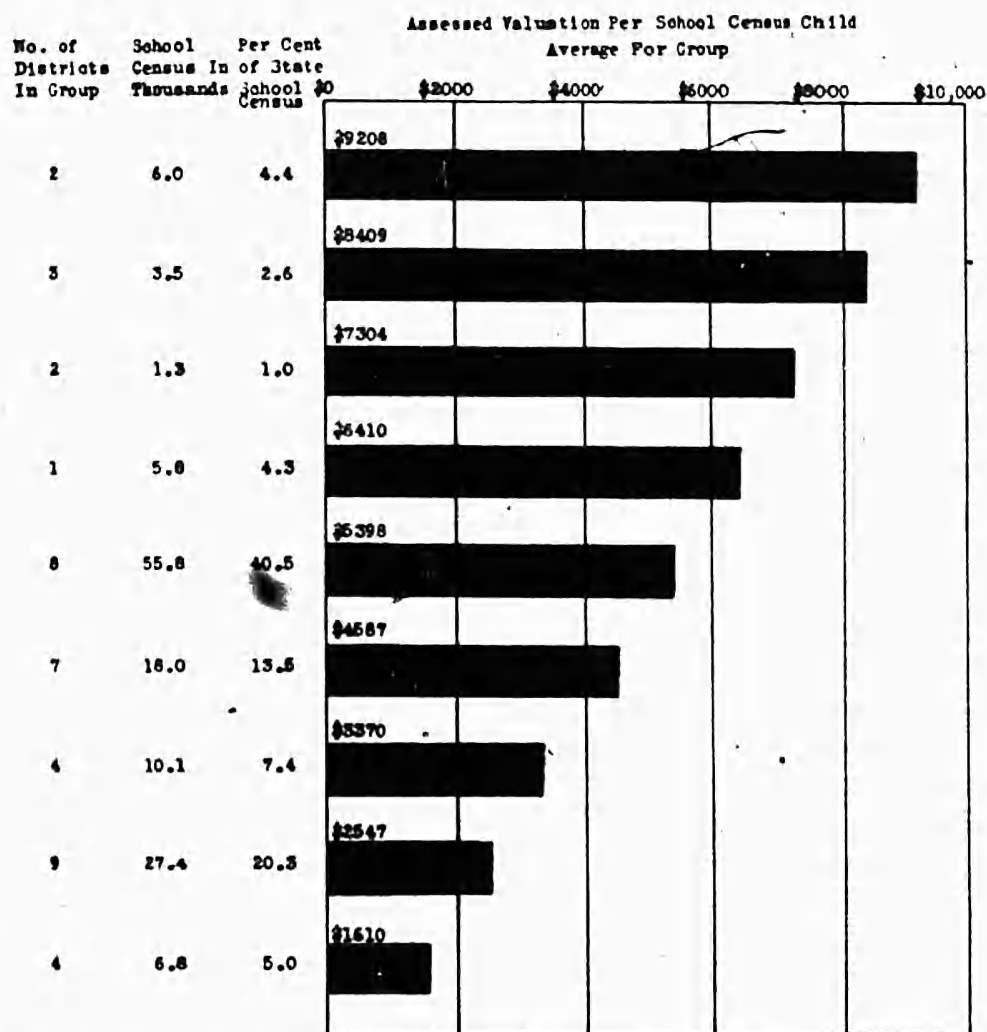


FIG. 32.—Inequalities in ability of Utah school districts to support schools, shown by inequalities in assessed valuation per child 6-18 years, 1925. Based upon Table 20

for every child within their boundaries. Fourteen districts and three cities—Murray, Ogden, and Logan—have less than \$4,000. In other words, these last 17 school corporations are half, or less than half, as able to provide funds for schools as the five rich districts named above. Approximately one-third of the entire school census of the State (32.7 per cent) is to be found within these 17 districts, whereas only 7 per cent of the school-census children reside within the five richest districts; 55,800 children, constituting four-tenths (40.5 per

cent) of the entire school census live in a group of eight districts where the average assessed valuation per child is only slightly over \$5,000 (\$5,398). Four districts—Uintah, Wayne, Garfield, and Washington—derive their school revenues from valuations amounting to less than \$2,000 per census child.

In Table 20 Utah's 40 school districts are ranked, first, in the order of their assessed valuation, then in the order of their estimated true valuation per school-census child, and the valuation per child of each district is shown. Figure 32 and Table 18 show in a striking manner the great inequalities in the ability of Utah's school districts to support schools. The 40 districts are presented in nine groups. For every group is shown (1) the number of districts included in the group; (2) the total number of children of school age living within the districts constituting the group; (3) the per cent that this number is of the school census of the entire State; (4) the average assessed valuation per school-census child of the districts constituting the group. This average valuation per child is represented by nine horizontal bars. The figure should be read as follows: Group I includes two districts; the school census of this group amounts to 6,000 children, which is 4.4 per cent of the total school census of the State. The average assessed valuation per school census child of these two districts amounts to \$9,208.

TABLE 18.—*Utah's 40 school districts grouped, showing inequalities in valuation of the taxable property upon which they must depend for their school revenues, 1924-25*

Group No.	Assessed valuation per child, in thousands of dollars		Average valuation per school child of districts in groups	Total number of districts in group	Districts	School census in group	
	Less than—	More than—				Total in thousands	Per cent of State school census
I.....	9.5	9	\$9,208	2	Jordan, Park City.....	6.0	4.4
II.....	8.5	8	8,409	3	Grand, Toole, North Summit.....	3.5	2.6
III.....	7.5	7	7,304	2	Morgan, South Summit.....	1.3	1.0
IV.....	6.5	6	6,410	1	Box Elder.....	5.8	4.3
V.....	5.5	5	5,397	8	Daggett, Carbon, Granite, Juab, Nebo, Salt Lake, Tintic, Weber.....	55.8	40.5
VI.....	5.0	4.5	4,586	7	Beaver, Cache, Davis, Iron, Millard, Rich, Wasatch.....	18.0	13.3
VII.....	3.5	3	3,370	4	Alpine, Kane, Murray, Provo.....	10.1	7.4
VIII.....	3.0	2.5	2,547	9	Duchesne, Emery, Logan, North Sanpete, Ogden, Piute, San Juan, Sevier, South Sanpete.....	27.4	20.3
IX.....	1.5	1	1,304	4	Garfield, Washington, Wayne, Uintah.....	6.8	5.0

11. e., per school census child 6-18 years of age.



That there are wide variations from district to district in the percentage of the true valuation which is assessed, in other words, made available for taxing purposes, will be set forth in the paragraphs which follow. This fact must be carefully considered in any attempt to compare Utah school districts with respect to ability to provide school revenues. Fortunately for the present study, the State board of equalization, through its secretary, has gathered facts which make it possible to determine within reasonable limits of accuracy the true valuations of Utah school districts.

The laws of Utah, in common with those of many other States, require that all property shall be assessed at its full or true value. The State board of equalization interprets the term true valuation as meaning the price which a piece of property would bring when sold under normal condition of sale. In order to ascertain to what extent property is assessed at its true value, the secretary of the State board of equalization during the years 1923, 1924, and 1925 secured from the various counties in the State a statement of the actual prices at which various pieces of property were sold and thereupon made a list of these sales and the prices secured. This list was sent to the assessors of each county in which the property was located, and the assessor entered the assessed valuation against each sale. In this manner the actual selling price and the assessed valuation were secured on no less than 1,974 transactions. In these transactions every county in the State but one was represented. The total assessed valuation of the property involved in these transactions was \$2,276,522, and the actual total selling price was \$4,171,942. From these facts it was discovered that, taking the State as a whole, property was being assessed at approximately 55 per cent of its true value. On the basis of the data secured by the State equalization board, it was also possible to determine for each of the counties included in the transactions reported an estimate of the average per cent of true value at which property within the county is assessed. Similar investigations were made by the Oregon Short Line Railroad Co. and the Los Angeles & Salt Lake Railroad Co. The Oregon Short Line Railroad Co. discovered that, on an average, property involved in 1,658 sales in counties through which its railroad lines pass is assessed at 53.4 per cent of its true value, and the Los Angeles & Salt Lake Railroad Co. found that property represented by 1,247 sales was assessed at 53.34 per cent of its true value.

In order to discover how widely the assessed valuation diverges from true value throughout the State the present report has com-

<sup>1</sup> Recognizing that property was assessed far below its true value, Utah in 1915 passed an act that all property shall be assessed at its full value.

puted the true valuation of each school district on the basis of the per cent which the assessed valuation is of true value as estimated by the State equalization board.

Table 18 presents 12 districts in which were found the greatest divergences between assessed valuation and true valuation and shows for each the valuation per school census child.

In Table 19 all the districts of the State are arranged and ranked first, in the order of assessed valuation per child, and second, in the order of true valuation per child.

In Table 20 Utah's 40 school districts are arranged in 8 groups on the basis of assessed valuation per school child. The range of the per cent of true valuation assessed by the districts included in each group is shown as well as the median or typical percentage of true valuation that is assessed by the districts included in the groups.

Figure 33 shows graphically the extreme inequalities between assessed and true valuation found in 5 of the 12 districts included in Table 18, and Figure 34 shows the proportion of each \$100 of true valuation that is taxed and the proportion of each \$100 of true valuation that is not taxed in the district most representative of the groups included in Table 20. In cases where it was not possible to take an individual district representing the approximate median valuation of the districts included in the groups, the average of the valuation of the districts included in the group was taken.

TABLE 19.—*Extreme inequalities in assessed and true valuation as found in 12 Utah school districts, 1924*

District	Valuation per child				
	Assessed		True		Excess of true value over assessed valuation
	State rank	Amount	State rank	Amount	
Tooele	4	\$8,475.84	10	\$11,301.11	\$2,825.27
Salt Lake	9	5,726.94	21	8,299.92	2,572.98
Tintic	10	5,507.09	18	8,604.83	3,097.74
Juab	12	5,414.28	19	8,459.82	3,045.54
Granite	13	5,360.01	24	7,768.14	2,408.13
Carbon	16	5,027.98	8	11,692.29	6,664.31
Millard	19	4,591.61	12	10,436.11	5,844.50
Wasatch	20	4,534.28	25	6,211.47	1,677.09
Iron	21	4,478.35	13	9,769.31	5,290.96
Cache	22	4,466.14	11	10,893.04	6,426.90
Murray	27	3,191.53	33.5	4,628.41	1,436.88
Logan	35	2,113.52	29	5,419.29	3,305.77



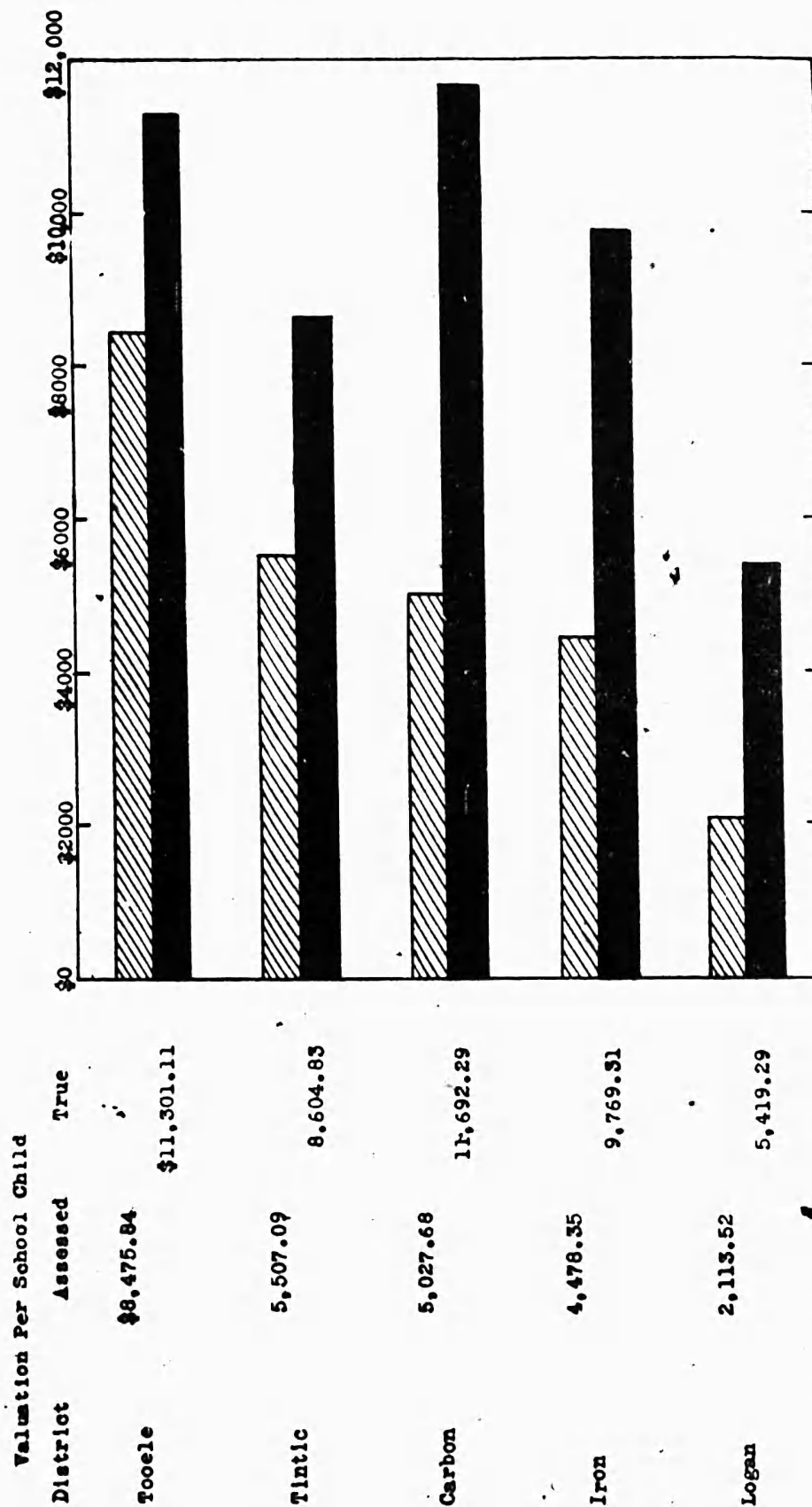


FIG. 33. Inequality in assessed and true valuation of 5 Utah school districts. (Each bar represents district valuation per school child of 15 years)

Proportion of Each  
\$100 of True  
Valuation In  
District Most  
Representative  
of the Group

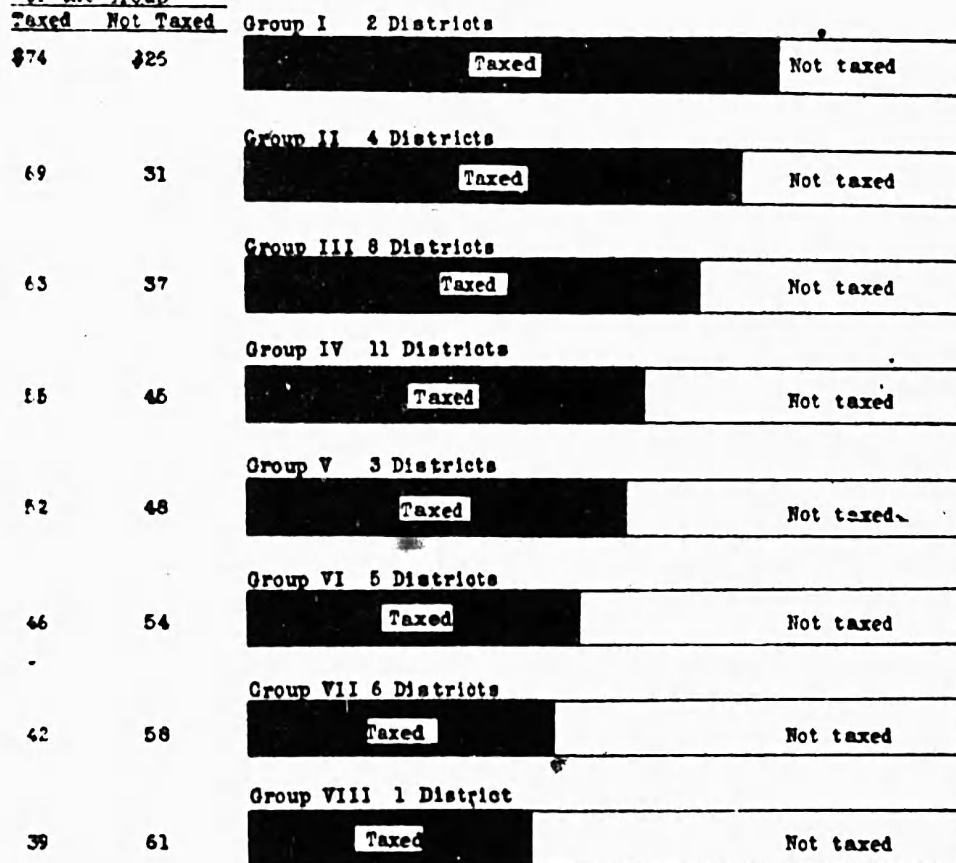


FIG. 34.—Proportion of each \$100 of estimated true valuation which is taxed. (Districts arranged in 8 groups)



TABLE 20.—*Inequalities of Utah school districts in ability to finance schools*[A comparison of assessed and true valuation per child,<sup>1</sup> 1924]

District *	Assessed valuation per child <sup>1</sup>		District	True valuation per child	
	Rank	Amount		Rank	Amount
Jordan	1	\$9,404.11	Grand	1	\$15,447.85
Park City	2	9,012.70	Park City	2	14,775.42
Grand	3	8,496.32	Nebo	3	13,740.09
Tooele	4	8,175.84	Jordan	4	13,629.15
North Summit	5	8,251.97	North Summit	5	13,549.14
South Summit	6	7,588.06	Box Elder	6	12,569.48
Morgan	7	7,020.09	South Summit	7	12,439.46
Box Elder	8	6,410.43	Carbon	8	11,692.29
Salt Lake <sup>2</sup>	9	5,726.94	Morgan	9	11,508.34
Tintic	10	5,507.09	Tooele	10	11,301.11
Nebo	11	5,496.03	Cache	11	10,893.04
Juab	12	5,414.28	Millard	12	10,436.11
Granite	13	5,360.01	Iron	13	9,769.31
Daggett	14	5,335.58	Daggett	14	9,701.07
Weber	15	5,314.11	Weber	15	9,489.58
Carbon	16	5,027.06	Davis	16	9,123.38
Davis	17	4,835.39	Rich	17	8,751.04
Rich	18	4,813.07	Tintic	18	8,604.83
Millard	19	4,591.61	Juab	19	8,459.82
Wasatch	20	4,534.38	Beaver	20	8,445.10
Iron	21	4,478.35	Salt Lake <sup>2</sup>	21	8,296.92
Cache	22	4,466.14	Alpine	22	8,206.17
Beaver	23	4,391.45	Provo <sup>2</sup>	23	8,063.61
Provo <sup>2</sup>	24	3,723.06	Granite	24	7,768.14
Kane	25	3,285.34	Wasatch	25	6,211.47
Alpine	26	3,282.46	Kane	26	5,973.35
Murray <sup>2</sup>	27	3,191.53	North Sanpete	27	5,823.63
Emery	28	2,963.24	South Sanpete	28	5,702.42
Sevier	29	2,948.04	Logan <sup>2</sup>	29	5,419.29
Piute	30	2,849.40	Sevier	30	5,264.37
North Sanpete	31	2,737.10	Piute	31	5,180.73
South Sanpete	32	2,680.13	Emery	32	4,703.56
San Juan	33	2,282.36	Uintah	33	4,628.00
Ogden <sup>2</sup>	34	2,278.88	Murray <sup>2</sup>	34	4,625.41
Logan <sup>2</sup>	35	2,113.52	Ogden <sup>2</sup>	35	4,239.29
Duchesne	36	2,072.74	San Juan	36	4,149.76
Uintah	37	1,943.75	Duchesne	37	3,343.12
Wayne	38	1,625.88	Washington	38	3,063.75
Garfield	39	1,459.21	Wayne	39	2,956.14
Washington	40	1,406.32	Garfield	40	2,653.11

<sup>1</sup> Per school census child.<sup>2</sup> City.

From Tables 19, 20, and 21 we see that the assessed valuation reported by school districts and counties is an entirely untrustworthy basis upon which to judge their respective abilities to provide school revenue. According to the assessments made in 1924 Salt Lake ranked ninth in ability to provide school revenues; on the basis of true value it ranks twenty-first. Carbon district ranked sixteenth on the basis of assessed valuation per child, but is eighth on the basis of true value. Tooele ranked fourth on the basis of assessed, but is tenth on the basis of true value. Cache ranked twenty-second on the basis of assessed valuation, but is eleventh on the basis of true value.

Summarizing the situation, we may say that the percentage of true value which is assessed by Utah school districts varies all the way from 75 per cent of true value assessed by Tooele to 39 per cent assessed by Logan. Only 2 districts in the State assessed property at

more than 70 per cent of its true value; 12 at between 60 and 70 per cent; 11 at between 55 and 56 per cent; and 12 at less than 50 per cent.

TABLE 21.—*Inequalities in assessment*

(Utah school districts grouped and ranked on basis of percentage of true valuation which is assessed)

Group and number of districts	Districts	Per cent of estimated true valuation which is assessed			
		Rank	Per cent	Range	Median
Group I (2 districts)	Tooele	1	75	70-75	74
	Wasatch	2	73		
	Granite	4.5	69	65-70	69
Group II (4 districts)	Jordan	4.5	69		
	Murray	4.5	69		
	Salt Lake	4.5	69		
Group III (8 districts)	Juab	7.5	64	60-65	62.5
	Tintic	7.5	64		
	Emery	9	63		
	Duchesne	10	62		
	Morgan	12.5	61		
	Park City	12.5	61		
	North Summit	12.5	61		
	South Summit	12.5	61		
	Sevier	15.5	56		
	Weber	15.5	56		
Group IV (11 districts)	Daggett	20	55	55-60	55
	Garfield	20	55		
	Grand	20	55		
	Kane	20	55		
	Piute	20	55		
	Provo	20	55		
	Rich	20	55		
	San Juan	20	55		
	Wayne	20	55		
	Davis	26	53		
Group V (3 districts)	Beaver	27	52	50-55	52
	Box Elder	28	51		
	North Sanpete	29.5	47		
Group VI (5 districts)	South Sanpete	29.5	47	45-50	46
	Iron	32	46		
	Ogden	32	46		
	Washington	32	46		
	Millard	34	44		
Group VII (6 districts)	Carbon	35	43	40-45	42
	Uintah	36	42		
	Cache	37	41		
	Alpine	38.5	40		
	Nebo	38.5	40		
Group VIII	Logan	40	39	35-40	39

Having determined as far as available data permit the true value per school child of each of Utah's school districts, we may now briefly compare these districts as to their ability to provide school revenues.

Summarizing the data in Table 20 we discover that 4 districts in the State have a true value of between \$2,000 and \$4,000 per child; 11 districts have a true value of between \$4,000 and \$6,000 per child; 2 districts between \$6,000 and \$8,000; 11 districts between \$8,000 and \$10,000 per child; 5 districts between \$10,000 and \$12,000 per child; 5 districts between \$12,000 and \$14,000 per child; only 2 districts have a value of more than \$14,000 per child, namely, Park City and Grand. In view of these wide variations in true ability to provide



school revenues which have just been indicated, it is not surprising that we should find great inequalities in school revenues, in expenditures, and in educational opportunities. Indeed, such inequalities are inevitable and will never be done away with until the State assumes the responsibility of remedying them and provides the necessary funds.

Table 5 indicated that in 1925 the State average expenditure per pupil in average daily attendance for all current costs amounted to \$67.28. Perhaps no better method could be devised for revealing quickly and forcibly the differences in the financial ability of Utah's 40 school districts than to compare the rates it would be necessary for representative districts to levy in order to produce this amount. For this purpose were selected the districts holding the following ranks in true value per school-census child: Rank 1, 5, 10, 15, 20, 25, 30, 35, 40.

A comparison of these districts shows that Grand, North Summit, and Tooele could have produced \$67.28 per child in average daily attendance by levying a tax of approximately 8 mills each on their present assessed valuation, and Weber by a tax of 13 mills. But Beaver and Wasatch would be obliged to levy approximately 15 mills to produce the above amount, Sevier 23 mills, Ogden 30 mills, and Garfield 46 mills. The rates required would in many cases be modified if the tax were levied on true instead of assessed valuation. Thus the rates which Grand and Tooele must levy on the basis of assessed valuation are approximately the same, being, respectively, 7.92 mills for Grand and 7.93 mills for Tooele. But if taxes were levied on a true valuation, Grand would be obliged to levy only 4.4 mills, whereas Tooele would be obliged to levy nearly 6 mills to produce \$67.28 per child. If assessed valuations are employed, Beaver would need to levy a tax of 15.3 mills in order to provide \$67.28 per child, and Wasatch a tax of 14.8 mills, but if taxes were levied on a true valuation, Wasatch would be obliged to levy nearly 11 mills (10.83), and Beaver less than 8 mills (7.96).

Table 22 shows the rate which each of the districts under consideration would be obliged to levy in order to provide \$67.28 per child in average daily attendance. The same data are presented graphically in Figure 35.

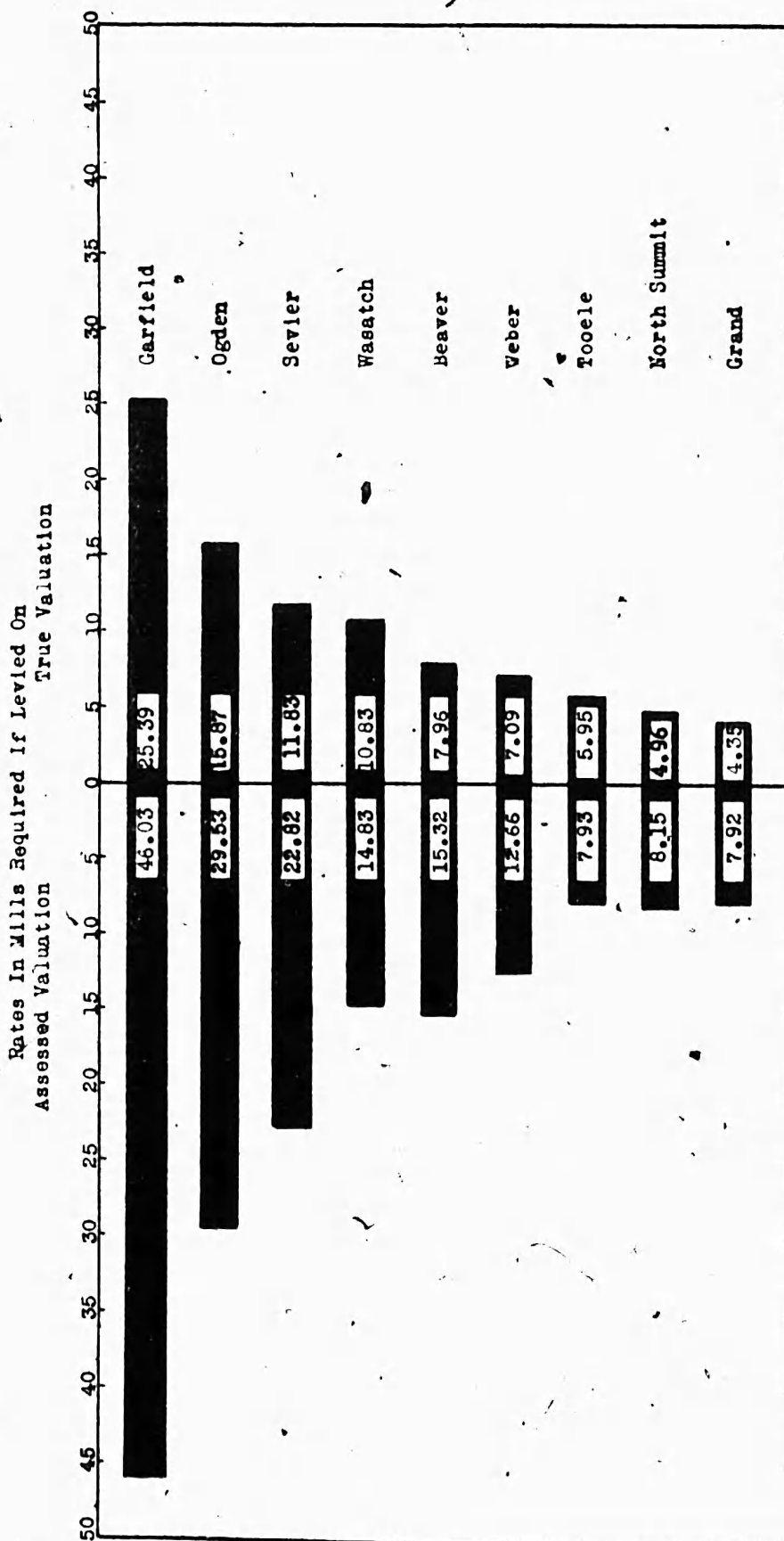


FIG. 35.—Tax rates which must be levied by 9 Utah districts to provide \$67.28 for each child in average daily attendance.

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TABLE 22.—A comparison of the rates which must be levied by nine Utah districts upon true and upon assessed valuations of 1924 in order to produce \$67.28 per child in average daily attendance<sup>1</sup>

State rank in true valuation per child <sup>2</sup>	Districts Names	Rate required if levied upon—	
		True valuation	Assessed valuation
1	Grand	4.35	5.92
5	North Summit	4.96	8.45
10	Tooele	5.97	7.93
15	Weker	7.09	12.64
20	Beaver	7.56	10.42
25	Wasatch	10.84	11.83
30	Sevier	11.84	22.82
35	Ogden	15.87	29.56
40	Goshute	25.10	46.05

<sup>1</sup> \$67.28 was the State average expenditure per child in average daily attendance in 1925. The districts included in the present table were those holding the following ranks in true valuation per school census child, 1924: Rank 1, 5, 10, 15, 20, 25, 30, 35, 40.

<sup>2</sup> I. e., per school census child 6-18 years of age.

#### INEQUALITIES IN INDEBTEDNESS

It is evident that a district's ability to provide moneys for teachers' salaries and other current costs is directly affected by the amount of its bonded indebtedness and the rate it levies for its sinking fund and interest on its debt. We may take as our measure of a district's school burden, as represented by its school debt, either the bonded debt it carries over against each \$1,000 of valuation or the bonded debt it carries for each child of school age within its boundaries. Both of these measures will be used in the paragraphs and tables which follow.

For the purpose of bringing the situation before us in a clear and definite manner, let us compare the school burdens of nine districts, selected on the basis of their financial ability; i. e., their true value per school census child. Let us ask how these districts compare as to (1) their bonded indebtedness per school child, (2) the proportion of their school taxes that must be spent on debt, (3) the effort they make to provide school revenue as represented by their tax rates, and (4) the results of this effort as represented by their expenditure per school child in average daily attendance. These matters are presented clearly and strikingly in Table 23. An earlier paragraph noted that high schools in Emery throughout are maintained as pay schools for half of each school year. For this reason Emery has been added to the eight districts selected on the basis of their true value per child and included in earlier tables.

TABLE 23.—*Inequalities in true valuation, school debts, and current expenditure of nine Utah school districts, 1925*

District	Estimated true valuation per school-census child		Total amount of outstanding school bonds	School bonded debt per school-census child		Total school tax		Levied for school debt		Current expenditure per child in average daily attendance
	Amount	State rank		Amount	State rank	Mills	State rank	Mills	Per cent of total rate	
Grand	\$15,448	1	\$12,500	\$24	43	8.55	32	0.25	4	\$105
Park City	14,775	2	No debt	0	1	4.4	40	0	0	74
Nebo	13,740	3	184,000	24	43	8.2	33	1.05	13	63
Beaver	8,445	20	246,850	168	39	16.8	1	5.00	30	61
Salt Lake	8,300	21	3,616,000	113	21	8.6	31	1.265	15	77
Emery	4,704	32	281,800	120	33	14.7	4	4.5	31	50
Washington	3,064	38	100,000	45	17	13.0	5	3.7	28	46
Wayne	2,956	39	50,000	43	15	13.9	2	4.1	29	47
Grand	2,653	40	75,970	49	19	12.0	6	3.0	20	47

1. e., among the State's 40 school districts.

2. Data relating to outstanding bonds as given in Table 13, p. 395, and Table 24, p. 437, do not exactly agree, having been gathered at different times.

It would be difficult to imagine a situation more permeated by inequalities and more characterized by injustice than that revealed by Table 23. Park City, the second richest district in the State, has no debt at all, levies a tax of only 4.4 mills, the entire proceeds of which are available for current expenses and which enable the district to spend annually \$74 per child. Salt Lake, which has approximately only four-sevenths the true value per census child which Park City has, levies nearly twice as heavy a tax and yet is able to spend only \$3 more per child than Park City. Moreover, whereas Park City has no bonded debt at all, Salt Lake carries a debt of \$113 for each school-census child and is obliged to devote 15 per cent of her school taxes to debt service.

The valuation per school child of Beaver District is only slightly more than half that of Grand, yet its bonded debt per child is seven times that of Grand and its total school tax nearly twice as great. Only 4 per cent of the school tax levied by Grand is spent for debt service, whereas 30 per cent of Beaver school taxes are used for this purpose. Authorities are agreed that throughout a period of years not more than from 2 to 5 per cent of annual revenues should be expended for debt service. We see that of the nine districts included in Table 23, only two in 1925 expended less than 13 per cent, namely, Park and Grand. Of the remaining seven districts, two devoted 13 per cent and 15 per cent, respectively, of their school taxes to debt service, three devoted between 20 and 30 per cent, and two devoted 30 and 31 per cent, respectively, to this purpose. The interested reader will do well to compare either Emery or Washington with Nebo and Park City.

Table 24 shows the school bonded indebtedness per school-census child for each district in Utah in 1925, and the assessed valuation per school-census child computed on the basis of 1924 assessments.



TABLE 24.—*Districts' bonded debts per school census child compared with valuation<sup>1</sup> per child, 1925*

[District arranged in order of indebtedness, 1925]

Districts	Bonded debt per school census child, 1925		Assessed valuation per school census child <sup>2</sup>	
	Rank <sup>3</sup>	Amount	Rank	Amount <sup>4</sup>
Park City	1	\$0	2	\$9,012
Weber	2	1	15	5,314
Davis	3	5	17	4,835
Grand	4.5	24	3	8,496
Nebo	4.5	24	11	5,496
Murray	6	25	27	3,191
Sevier	7	26	29	2,948
Tooele	8	31	4	8,475
South Summit	9	32	6	7,588
Tintic	10	33	10	5,507
Provo	11	34	24	3,723
Millard	12.5	37	19	4,791
San Juan	12.5	37	33	2,282
Logan	14	38	35	2,113
Kane	15.5	43	25	3,285
Wayne	15.5	43	38	1,625
Washington	17	45	40	1,409
Rich	18	48	18	4,813
Garfield	19.5	49	39	1,459
Jordan	19.5	49	1	9,404
Duchesne	21	58	36	2,072
North Sanpete	22	75	31	2,737
Box Elder	24	78	8	6,410
Cache	24	82	22	4,466
Uintah	25	85	37	1,943
Wasatch	26	92	20	4,534
Ogden	27	93	34	2,278
South Sanpete	28	96	3	2,680
Morgan	29	109	7	7,020
Alpine	30	112	26	3,282
Salt Lake City	31	113	9	5,726
Juab	32	117	12	5,414
Emery	33	120	28	2,963
North Summit	34	136	5	8,254
Granite	35.5	140	13	5,360
Iron	35.5	140	21	4,178
Piute	37	145	30	2,849
Carbon	38	159	16	5,027
Beaver	39	168	23	4,391
Daggett	40	183	14	5,335
Average		82		4,794

<sup>1</sup> Valuation as assessed in 1924.<sup>2</sup> Rank among Utah's 40 school districts.<sup>3</sup> Cents omitted.<sup>4</sup> City.

From Table 24 we see that in 1925 the bonded debt per school census child of Utah school districts varied from nothing in Park City to \$183 in Daggett. In five districts the debt per child was less than \$25. In 15 districts it ranged from \$25 to \$50. In one district (Duchesne) the debt falls within the limits \$50 to \$75; in seven districts between \$75 and \$100; in five districts between \$100 and \$125; in four districts between \$125 and \$150; in two districts between \$150 and \$175. In only one district does it exceed \$175, namely, in Daggett, where it amounted to \$183 per child. In half the districts of the State the bonded school debt amounted to less than \$50 per school census child; in one-fourth it ranged between \$58 and \$112; and in one-fourth between \$112 and \$183. Comparing the ranks in bonded debt per school census child with the ranks in assessed valuation per school census child brings out many interesting and significant situations. In only two districts, namely, Tintic and

Cache, does the rank in bonded debt per child lie close to the rank in assessed valuation per child. Tintic ranks tenth both in debt and in valuation per child, whereas Cache ranks twenty-fourth in debt and twenty-second in valuation. In all other districts there appears to be little or no relationship between ability as represented by valuation per child and burden as represented by bonded debt. Two or three examples will suffice to make clear this point. Daggett, which has the heaviest debt of all and consequently ranks fortieth in this respect, ranks fourteenth in valuation. Beaver, which has next to the heaviest debt per school child of any district in the State, ranks twenty-third in valuation per child. Washington, which has the lowest valuation per child of any of the 40 districts, has a school debt of \$45 per child and ranks seventeenth in this respect.

Table 25, which follows, shows the bonded school debt each district in the State is carrying against each \$1,000 of assessed valuation and each \$1,000 of estimated true value.

TABLE 25.—Utah school districts' bonded debt on each \$1,000 of assessed and true valuation, 1925<sup>1</sup>

District	Bonded debt on			
	Each \$1,000 assessed valuation		Each \$1,000 true valuation	
	Rank	Amount	Rank	Amount
Park City	1	None	1	None
Weber	2		2	
Davis	3	1	3	1
South Summit	4.5	4	4	2
Towehe	4.5	4	5	3
Tintic	6	6	6.5	4
Millard	7.5	8	6.5	4
Murray	7.5	8	10.5	6
Seyler	9	9	8.5	5
Box Elder	10.5	10	8.5	5
Rich	10.5	10	10.5	6
Kane	12	13	13	7
Provo	13	14	15	8
Morgun	14	15	16.5	9
North Summit	15.5	16	18	10
San Juan	15.5	16	16.5	9
Cache	17.5	18	13	7
Logan	17.5	18	13	7
Wasatch	19.5	20	28	15
Salt Lake City	19.5	20	23.5	14
Juab	21	22	23.5	14
Ogden	22	25	19	12
Wayne	23.5	26	23.5	14
Granite	23.5	26	32.5	18
Grand	25	27	28	15
Duchesne	26.5	28	31	17
North Sanpete	26.5	28	20	13
Iron	28	31	23.5	14
Carls	29.5	32	23.5	14
Washington	29.5	32	28	15
Alpine	32	34	24.5	14
Daggett	32	34	35.5	19
Garfield	32	34	35.5	19
South Sanpete	34	36	31	17
Beaver	36	38	37	20
Emery	36	41	38	20
Nebo	37	43	31	17
Uintah	38	44	33.5	18
Piute	39	44	39	28
Jordan	40	42	40	36

<sup>1</sup> Computed to nearest dollar.

<sup>1</sup> Less than \$1.



An earlier section of the present report has called attention to the wide variation between assessed and true valuation. Such a variation must necessarily result in wide discrepancies between the bonded debt per \$1,000 of assessed valuation and the bonded debt per \$1,000 of estimated true value. It will suffice at this point to call attention to a few of the more striking examples presented by Table 25. On its assessed valuation Cache carries a bonded debt amounting to \$18 for each \$1,000 valuation, but if property in Cache were assessed at its true value, its present bonded school debt would amount to only \$7 on each \$1,000. The situation is exactly the same with respect to Logan. A similar situation exists in such districts as Duchesne, North Sanpete, South Sanpete, Iron, Carbon, and Nebo.

#### ARE THESE DEBTS JUSTIFIED?

Do Utah school districts go too heavily in debt for school bonds? No; not if the legislation enacted by the State is sound. The laws of Utah provide that county districts may issue school bonds which, together with all existing indebtedness, shall not exceed 4 per cent of the total assessed valuation; and city districts, not to exceed 3 per cent. Both Brown and Fowlkes, outstanding authorities in this field, consider 5 per cent a reasonable limit.<sup>1</sup> Moreover, 5 per cent is the average for the United States as a whole. It is evident, therefore, that the limits fixed by Utah are not only reasonable, but are below the average. Not only is this true, but the school districts of Utah are far from reaching their limits, as will be seen from the following facts: In 1925 the total assessed valuation of Utah's 35 county school districts of the first class amounted to \$421,890,295 and the total bonded debt of these districts amounted to \$6,584,000. The total assessed valuation of Utah's five city districts amounted to \$246,521,286 and the total bonded school debt to \$4,866,000. From these facts we discover that the total bonded school debt of Utah's county school districts of the first class amounted to slightly less than 1.6 per cent of their total assessed valuation; and the total bonded school debt of Utah's five city districts amounted to 1.9 per cent of their total assessed valuation. In other words, taking these two groups of districts, we discover that, as a whole, city districts are bonded for only two-thirds of the percentage allowed by law, and county districts only slightly more than one-half. Bearing in mind that the laws of Utah provide that property shall be assessed at its true cash value; and that in reality, taking the State as a whole, property is assessed at approximately 55 per cent of its true value,

<sup>1</sup> See Finser Brown, *Municipal Bonds*, New York, Prentice Hall, 1922; and John Guy Fowlkes, *School Bonds* (pp. 59-67), Milwaukee, The Bruce Publishing Co., 1924.

it is evident that the school districts of Utah are very far from reaching the bonding limits designed and provided by the laws.

Table 26 shows for each district in the State its total bonded indebtedness in 1925, and the total bonded indebtedness possible for the district to incur, first on the basis of assessed valuation and then on the basis of true valuation. To these data are added the bonded indebtedness possible per school child on the basis of assessed valuation and on the basis of true valuation, and the school census of each district.

TABLE 26. — *Maximum bonded indebtedness possible for Utah school districts based on assessed and on true valuations, 1924*

[All amounts in columns 3, 4, and 7 referring to bonds are stated in thousands of dollars]

District	School census, 1925	Bonds outstanding, 1925	Bonded indebtedness possible					
			On assessed valuation			On true valuation		
			Total	Per school child		Total	Per school child	
				Amount	Rank		Amount	Rank
1	2	3	4	5	6	7	8	9
Alpine	1,877	546	720	\$148	25	1,601	\$349	18
Beaver	1,474	247	270	176	23	498	338	20.5
Box Elder	5,872	380	1,506	309	6	2,952	606	2
Cache	5,480	450	979	179	21.5	2,388	436	10
Carbon	5,365	874	1,079	201	16	2,569	468	7
Daguerre	115	21	25	218	11	45	391	12.5
Davis	3,830	18	741	194	17	1,398	365	16
Duchesne	2,520	146	209	83	35	337	134	36
Emery	2,350	282	279	119	27	442	188	31
Garfield	1,533	76	91	58	39	165	106	40
Grand	536	13	182	340	3	331	620	1
Granite	7,200	1,008	1,564	217	12.5	2,237	323	22
Iron	1,931	271	347	179	21.5	755	391	12.5
Jordan	6,205	253	1,958	376	1	2,838	545	4
Judah	1,288	151	279	217	12.5	436	338	20.5
Kane	650	28	85	131	26	155	239	27
Midland	3,519	130	646	184	19	1,460	417	11
Morgan	763	81	214	281	8	351	460	8
Nehalem	5,671	134	1,247	219	10	3,117	373	15
North Sanpete	2,774	208	304	110	31	646	233	28
North Summit	774	105	256	331	5	419	541	5
Park City	976		352	361	2	577	591	3
Piute	760	110	87	115	29	157	207	30
Rich	580	28	112	193	18	203	350	17
San Juan	934	35	85	91	34	155	166	33
Sevier	3,633	96	428	117	28	765	208	29
South Sanpete	2,588	247	277	207	15	790	305	23
South Summit	528	47	160	303	7	263	498	6
Tintic	1,509	50	332	220	9	519	344	19
Tooele	2,182	68	740	339	4	986	452	9
Utah	2,945	250	279	95	33	545	185	32
Wasatch	1,632	150	206	182	20	405	248	25
Washington	2,213	101	125	57	40	271	123	38
Wayne	701	30	46	66	37	83	178	39
Weber	3,007	3	767	213	14	1,369	379	14
Salt Lake City	32,103	3,616	5,516	172	24	7,994	249	24
Ogden	10,412	968	1,163	112	30	2,528	243	26
Provo	3,890	130	272	70	36	495	127	37
Logan	3,020	115	191	63	38	491	162	34
Murray	1,498	37	144	96	32	208	139	35
Total or average	139,457	11,450	23,290	167		43,894	313	



The discussion given in connection with Table 25 makes unnecessary any prolonged discussion of Table 26. Comparing the totals of columns 3, 4, and 7, we see that, whereas the total bonded school debt of the State amounts to \$11,450,000, the bonded debt which districts could legally incur under the present law limits would amount to \$23,290,000, on the basis of present assessed valuations. If, however, true valuations were to be made the basis of bonding, the districts of Utah would be able to incur \$43,894,000 of bonded school indebtedness. Finally, we may note that the total bonded school debt of the State is less than one-half that permitted by law on the basis of existing assessments.

#### HOW CAN WE RECONCILE THESE CONCLUSIONS WITH FORMER STATEMENTS?

The paragraphs immediately preceding have stated with much positiveness that not only are Utah's school districts far below the limit of bonded indebtedness allowed to them by law, but that on the basis of the opinion of experts the State as a whole would be justified in practically doubling its present bonded school debt. How can we reconcile these conclusions with the fact previously brought out, namely, that many districts are spending such a large proportion of their school revenue on debt service as to leave totally inadequate funds for teachers' salaries and other current expenses? (See Table 23 and accompanying text.) The answer to this question is to be found in the fact already emphasized many times—that property in Utah is assessed far below its true value. It has been shown that the basis of assessment varies all the way from 39 to 75 per cent, the average being approximately 55 per cent. Were property assessed at its true value, as provided by law, the taxes now levied would produce from 25 to 60 per cent more revenue, with the result that a much smaller fraction of this revenue would be required for debt service. The solution of the present problem must therefore be found in assessing property on the basis provided by law, namely, its true value.

#### MERITS AND DEFECTS IN UTAH'S PRESENT BONDING POLICIES

The immediately preceding paragraphs have pointed out one important merit and one important defect in Utah's practices with regard to school bonds. Attention has been called to the wise provision which the State has made with regard to limiting the amount of indebtedness which school districts may incur. On the other hand it has been shown that, because property is assessed far below its true value, the funds derived from local taxes are so meager that an

undue percentage of tax proceeds must be used for interest on school debts and for sinking funds, leaving totally inadequate funds for current costs.

While Utah's policy of fixing the limits of indebtedness which districts may incur is a sound policy and worthy of commendation, her policy of permitting county districts to bond themselves more heavily than cities can not be justified. If this policy rests on the assumption that county districts are poorer than cities, it is a policy which definitely aims at allowing the poorer and less able districts to assume a heavier burden. Moreover, the assumption that cities are more able than the county districts of the first class to provide school revenues is false. A reference to Table 20 will show that Salt Lake has an assessed valuation per school child less than that of eight county districts of the first class and that the remaining four cities, Provo, Murray, Ogden, and Logan, are outranked by 22 county districts.

The situation is even more convincing if we compare city districts with county districts on the basis of true valuation per child. If Utah believes in fixing different limits of bonded indebtedness for different districts, these limits should be based upon differences in ability to support schools as measured by true valuation per child; and the lower the valuation, the lower should be the limit. The soundness of this procedure is supported by what is well-nigh universal practice in connection with the levying of personal income taxes. Personal incomes which fall below a certain amount are not taxed at all, and as the personal income increases the rate of taxation is increased.

Among the bonding policies of Utah which are to be commended for their soundness are (1) the provision that the term of bonds shall not exceed 20 years; (2) the requirement that an annual tax shall be levied sufficient to pay all interest on outstanding bonds; (3) the provision that proceeds of bonds shall be used exclusively for the purpose or purposes for which the bonds were originally issued; (4) the provision for a definite method of determining the validity or legality of bonds issued by county school districts.

#### DEFECTS AND RECOMMENDATIONS

Utah should amend her laws so as to provide in the case of city districts, as she has done in the case of county districts of the first class, a definite method for determining the validity or legality of any proposed bond issue.



The present law should be further amended so as to require that bond-election notices shall indicate the present total outstanding indebtedness, the present tax rate for interest and for sinking funds, and the additional rate required if the proposed bonds are issued. It is obvious that without a knowledge of such facts voters can not cast intelligently their ballots for or against a proposed bond issue.

Section 4614 of the laws (see Utah School Laws, 1925, p. 29) should be so amended as to require that the annual public report of the clerk of the board of education of county districts of the first class shall show the following items: (1) Number and value of outstanding bonds; (2) maturity of each issue; (3) annual expenditure for interest on bonds; (4) annual amount required by law to be added to the sinking fund; (5) amount added to the sinking fund during the last fiscal year. The clerk's report should contain a separate statement showing the exact condition of the sinking fund--i. e., the securities in which it is invested, the interest derived therefrom, moneys awaiting investment and all disbursements made from the sinking fund, and all receipts during the last fiscal year.

The law should be further amended so as to prohibit the refunding of bonds as a means of providing payment at the time of their maturity. Refunding should be permitted only when a lower rate of interest or better terms can be obtained. Reports have come to the survey commission of districts which sell their school bonds, then use the moneys which have accumulated in the sinking fund to purchase back these bonds, and fail to redeem or cancel the bonds purchased. The district in such cases sometimes does not even clip the coupons, but every year levies a tax to pay the interest on these bonds and uses this interest for current expenses.

The policy of Utah of requiring districts to establish a sinking fund in order to provide for the payment of bonds when they shall become due is much superior to the policies of many States, where no sinking fund is required. However, the present law is inadequate. Boards of education of districts are required to set aside as a sinking fund each year 2 per cent of the par value of outstanding bonds for the redemption of said bonds and are required to cause the necessary tax to be levied and collected for this purpose. But to redeem a 5 per cent bond at the close of 20 years will require the setting aside annually of not 2 per cent, but something over 3 per cent, of the par value of the bond, as the example given in the paragraph immediately following shows.

Assume that a district has a \$10,000 bond to be redeemed at the end of 20 years. How much would it be necessary to set aside as a

sinking fund each year in order to accumulate a fund sufficient to pay the bond at its maturity? According to standardized commercial tables the annuity of \$1 at 5 per cent for 20 years is \$33.07. If the annuity of \$1 at 5 per cent amounts to \$33.07 in 20 years, in order to pay off \$10,000 at the close of 20 years it will be necessary to set aside each year as many dollars as \$33.07 is contained times in \$10,000, or \$302.43. This, then, is the sum which must be added each year to the sinking fund if the \$10,000 bond is to be redeemed at the close of 20 years.

The rate which must be levied on the face of the bond in order to produce \$302.43 annually is of course easily determined by dividing \$302.43 by \$10,000, which amounts to 3.0243 per cent. In other words, in order to accumulate a sinking fund which will redeem a \$10,000 5 per cent bond at the end of 20 years it is necessary to levy a tax sufficient to provide something over 3.02 per cent of the value of the bond. But the present law requires that only 2 per cent of the face value of the bond be set aside annually, which would amount to \$200. Since the annuity of \$1 at 5 per cent for 20 years amounts to \$33.07, \$200 set aside each year would at the end of 20 years amount to \$33.07 multiplied by \$200, or \$6,614. Deducting \$6,614 from \$10,000 we have \$3,386, the amount which will be lacking when it comes time to redeem the bond at the close of 20 years.

The difficulties in the existing situation would be largely remedied were Utah to adopt a serial bond policy. This policy has already been adopted to a considerable extent throughout this State. Of all forms of bonds, serial bonds are regarded as the soundest and are most highly indorsed alike by banking houses and by the leading authorities on finance.

The present report offers therefore two recommendations with regard to the redemption of bonds, namely, the enactment of a law which will require that in the future all school bonds issued shall be serial bonds, and second that school boards be required to set aside annually as a sinking fund for the redemption of now outstanding bonds, not 2 per cent or any other fixed rate, but such per cent of the par value of outstanding bonds for the redemption of said bonds as shall be sufficient to pay said bonds when due, and that they shall be required further to cause a tax of sufficient rate to be levied and collected for this purpose.

#### INEQUALITIES IN EFFORT

A simple and easy way of comparing the efforts put forth by school districts to support schools is to compare their tax rates; but for purposes of comparison, the rates actually levied by school



districts in Utah have absolutely no meaning, owing to the wide variations among districts as to the percentage of true value which is assessed and which therefore becomes the basis upon which the tax rate is computed and levied. If a district levies a tax of 8 mills upon an assessed valuation representing 100 per cent of its true value, it is evident that its true tax rate may be regarded as 8 mills. But if a district levies its tax upon an assessed valuation representing only one-half of its true value, it is evident that its true tax is only 50 per cent of 8 mills—that is, 4 mills.

The total district-school tax for support and maintenance, buildings and sites, interest, and sinking fund levied in 1925 by Uintah was 13.75 mills. This was 2.4 mills greater than the total district tax of 11.35 mills levied by Sevier. But property in Uintah is assessed at only 42 per cent of its true value, whereas property in Sevier is assessed at 56 per cent of its true value. Reducing each of these rates to a true tax rate, we discover that Uintah's rate, instead of being 2.4 mills greater than that of Sevier, is actually 0.6 of a mill less, for the equalized rate of Uintah is only approximately 5.8 mills, whereas that of Sevier is 6.4 mills. It has seemed best in the paragraphs and tables which follow to present as measures of effort both the rates actually levied by school districts and these same rates equalized.

How misleading and how incapable of comparison are tax rates reported by districts which assess their property on bases ranging all the way from 39 to 75 per cent of true value is shown by Table 27. In this table is shown for each district in the State the average of the taxes which it levied in 1924 and in 1925 for current expenses—that is, for all costs except buildings, sites, interest, and sinking fund. As noted elsewhere, these last four items vary widely from year to year and from district to district, and it has seemed best to exclude them from the present comparison. The districts in Table 27 are arranged in the order of the rates actually levied. In the fifth column of this table is shown for each district what rate would have been required to raise the same amount of money if property were assessed at its estimated true value.

TABLE 27.—Average of tax rates levied by 39 Utah school districts<sup>1</sup> for current expenses<sup>2</sup> during the two years 1924 and 1925

[Showing rates levied and equalized rates on true valuation]

Group	Districts	Rates levied on assessed valuation		Equalized rates on true valuation <sup>3</sup>	
		Rank <sup>4</sup>	Mills	Rank	Mills
1	2	3	4	5	6
Group I (5 districts)	Garfield	1	4.12.0	2	6.6
	Uintah	2	4.11.0	14	4.62
	Logan	3	10.815	21	4.22
	Tufts	4	10.75	1	6.88
	South Summit	5	10.13	4.5	6.18
	Wayne	6	9.8	8	5.39
Group II (6 districts)	Ogden	7	9.545	19	4.39
	Murray	8	9.495	3	6.55
	Emery	9.5	9.25	6	5.93
	Sevier	9.5	9.25	4.5	6.18
	North Summit	11	9.05	7	5.52
	Alpine	12	8.96	26.5	3.58
Group III (7 districts)	Beaver	13.5	8.9	13	4.63
	North Sanpete	13.5	8.9	22.5	4.18
	Kane	15	8.5	11	4.68
	Grand	16	8.2	15	4.31
	Piute	17	8.05	16	4.41
	San Juan	18	8.0	18	4.4
Group IV (7 districts)	Morgan	19	7.65	17	4.67
	Duchesne	20	7.6	16	4.71
	Iron	21	7.5	30	3.45
	Weber	22	7.582	24	4.13
	Daggett	23	7.25	25	3.90
	Neco	24	7.15	36	2.86
Group V (7 districts)	Salt Lake City	25	7.052	9	4.87
	Millard	26	6.95	34	3.06
	South Sanpete	27.5	6.9	31	3.24
	Washington	27.5	6.9	32	3.17
	Carbon	29	6.7	35	2.88
	Rich	29	6.5	26.5	3.58
Group VI (6 districts)	Granite	31	6.065	22.5	4.18
	Wasatch	32	6.05	17	4.42
	Tooele	33	5.845	20	4.38
	Davis	34	5.825	33	3.09
	Cache	35	5.585	39	2.29
	Juab	36	5.5	29	3.52
Group VII (1 district)	Box Elder	37	5.476	37	2.79
	Jordan	38	5.12	28	3.53
	Park City	39	4.55	38	2.78

<sup>1</sup> Provo is not included in the present table, owing to the fact that it was impossible to separate its current costs from total annual costs.<sup>2</sup> Excluding costs for capital outlay and debt service.<sup>3</sup> Rank among 39 districts.<sup>4</sup> This column shows what rate on true or on full valuation would have been required to produce the same amount of revenue as was produced by the rate actually levied on the assessed valuation. Previous paragraphs have shown that property in Utah is assessed at from 39 to 75 per cent of its true or full value.<sup>5</sup> Tax for 1925 only.<sup>6</sup> Average for 1923 and 1925.<sup>7</sup> Average for 1923 and 1924.

From Table 27 we see that the two-year average of taxes for support and maintenance varied all the way from 12 mills levied by Garfield to 4.55 mills levied by Park City. In five districts the tax for current expenses during the two years averaged over 10 mills; in 6 districts it lay between 9 and 10 mills; in 7 districts between 8 and 9 mills; in 7 districts between 7 and 8 mills; in 7 districts between 6 and 7 mills; in 6 districts between 5 and 6 mills; and in only 1 district, Park City, was it less than 5 mills, namely, 4.55 mills.

Turning our attention to Group I, we discover that Logan's rate of 10.8 mills, if levied on a true valuation, would become 4.2 mills,



whereas Tintic's rate of 10.75 mills, if levied on a true valuation, would become 6.8 mills. In Group IV we find that Nebo's rate of 7.15 mills, if levied on a true valuation, would become 2.86 mills, whereas Salt Lake City's rate of 7.05 mills would become 4.87 mills.

In Table 28 the 39 districts included in Table 27 have been arranged in the order of their equalized tax rates. This table enables us to compare more easily than does Table 27 the efforts made by the various districts. It brings out with remarkable clearness and force also the fact that there is little relation between ability to provide school revenue as measured by true valuation per child and effort as measured by equalized tax rates; that is, rates levied on true valuation.

TABLE 28.—Two-year average of tax rates for support and maintenance<sup>1</sup> levied by 39 Utah school districts, 1924 and 1925

[Districts arranged in order of equalized tax rate]

District	Rate on estimated true valuation		Rate actually levied		Estimated true valuation per child	
	Rank	Mills	Mills	Rank	Amount	
Tintic	1	6.88	10.75	18	\$8,604.83	
Garfield	2	6.6	12.0	40	2,653.11	
Murray	3	6.55	9.495	34	4,625.41	
Sevier	4.5	6.5	9.25	30	5,264.37	
South Summit	4.5	6.5	9.13	7	12,439.46	
Emery	6	5.9	9.25	32	4,703.56	
North Summit	7	5.52	9.05	5	13,549.14	
Wayne	8	5.39	9.8	39	2,956.14	
Salt Lake City	9	4.87	7.052	21	8,280.92	
Duchesne	10	4.71	7.6	37	3,343.12	
Kane	11	4.68	8.5	26	5,973.35	
Morgan	12	4.67	7.65	9	11,508.34	
Beaver	13	4.63	8.9	20	8,445.10	
Uintah	14	4.62	7.11	33	4,628.00	
Grand	15	4.51	8.2	1	15,447.85	
Piute	16	4.43	8.05	31	5,180.73	
Wasatch	17	4.42	6.05	25	6,211.47	
San Juan	18	4.4	8.0	36	4,119.76	
Ogden	19	4.39	9.545	35	4,239.29	
Tooele	20	4.38	7.5	10	11,301.11	
Logan	21	4.22	10.815	29	5,419.29	
Granite	22.5	4.18	6.065	24	7,708.14	
North Sanpete	22.5	4.18	8.9	27	5,833.63	
Weber	24	4.13	7.382	15	9,484.58	
Daggett	25	3.99	7.25	14	9,701.05	
Alpine	26.5	3.58	8.96	22	8,206.17	
Rich	26.5	3.58	6.5	17	8,751.04	
Jordan	28	3.53	5.42	4	13,629.15	
Juab	29	3.52	5.5	19	8,459.82	
Iron	30	3.45	7.5	13	9,769.31	
South Sanpete	31	3.24	6.9	28	5,702.42	
Washington	32	3.17	6.9	38	3,063.75	
Davis	33	3.09	5.825	16	9,423.38	
Milford	34	3.06	6.95	12	10,436.11	
Carbon	35	2.88	6.7	8	11,692.29	
Nebo	36	2.86	7.15	3	13,740.09	
Box Elder	37	2.79	5.476	6	12,569.18	
Park City	38	2.78	4.55	2	14,775.42	
Cache	39	2.29	5.585	11	10,893.04	

<sup>1</sup> Excluding all costs for capital outlays and debt service. Provo is not included in the present table owing to the fact that it was impossible to separate its costs for instruction and operation from total costs.

<sup>2</sup> Tax for 1925 only.

<sup>3</sup> Average for 1923 and 1925.

<sup>4</sup> Average for 1923 and 1924.

From Table 28 we see that the districts whose equalized tax rates range between 6 and 7 mills (see column 3) vary in true valuation per child all the way from \$2,653 (Garfield) to \$12,439 (South Sum-

mit). The equalized tax rates of Sevier and South Summit are the same, namely, 6.18 mills; yet Sevier has a true valuation of \$5,264, whereas that of South Summit is \$12,439. A comparison of the remaining groups of districts will show the situation to be the same throughout the entire State. Thus Millard levies a tax of 6.95 mills and Juab a tax of 5.5 mills, but when equalized Millard's tax becomes 3.06 mills and Juab's 3.52 mills. Millard has a true value of \$10,436 per child, whereas the true value of Juab amounts to only \$8,459.

Tables 27 and 28 have been based upon the tax rates for current expenses only. In Table 29 Utah's 40 school districts are arranged in 12 groups, according to the total rate levied in 1924. In addition to this Table 29 shows for each district what the rate would have been if levied on an estimated true valuation, and what if levied on the assessed valuation of the district.

TABLE 29.—*Inequalities of school tax rates levied by Utah school districts, 1924*  
[Variations in tax rates actually levied in 1924 for 1925 school revenues]

Groups and number of districts	Districts	Range of tax rates (mills)	Assessed valuation per school child	Tax rates on assessed valuation		What rate would be on true valuation <sup>1</sup>	
				Mills	Rank	Mills	Rank
Group I (1 district)	Beaver	More than 16	\$4,390	19.8	1	5.25	19
Group II (1 district)	Wayne	15-16	4,630	15	2	8.25	1
Group III (1 district)		14-15					
Group IV (3 districts)	Emery	13-14	2,960	13	4	8.19	2
	Kane		3,280	13	4	7.15	5
	Logan		2,110	13	4	5.07	23
Group V (3 districts)	Garfield	12-13	1,460	12	7	6.6	8
	Iron		4,480	12	7	5.52	16
	Utah		1,940	12	7	5.04	25
	Duchesne		2,070	11.6	9	7.19	4
	Murray		3,190	11.5	10	7.94	3
Group VI (9 districts)	Alpine	11-12	3,280	11.4	11	4.6	31
	Piute		2,870	11.4	12.5	6.27	10
	Washington		1,410	11.4	12.5	5.24	20
	North Sanpete		2,740	11.1	14	5.22	21
	Ogden		2,280	11	16	5.06	24
	North Summit		8,250	11	16	6.71	7
	Tintic		5,510	11	16	7.04	6
Group VII (4 districts)	Prayer	10-11	3,720	10	19.5	5.5	17.5
	San Juan		2,280	10	19.5	5.5	17.5
	South Summit		7,590	10	19.5	6.1	11
	South Sanpete		2,680	10	19.5	4.7	30
Group VIII (4 districts)	Sevier	9-10	2,950	9.9	22	5.54	15
	Morgan		7,020	9.5	23	5.8	13
	Daggett		5,340	9.3	24	5.11	22
	Granite		5,360	9.26	25	6.39	9
	Grand		8,500	8.6	26	4.73	29
	Carbon		5,030	8.5	27	3.66	35
	Millard		4,590	8.4	28	3.7	34
Group IX (7 districts)	Salt Lake City	8-9	5,730	8.1	29	5.59	14
	Cache		4,470	8	31	3.25	38
	Rich		4,810	8	31	4.4	32
	Wasatch		4,530	8	31	5.84	12
	Juab		5,410	7.5	33	4.8	28
Group X (4 districts)	Weber	7-8	5,310	7.46	34	4.18	33
	Jordan		9,400	7.1	35	4.9	26
	Nebo		5,500	7	36	2.8	40
Group XI (3 districts)	Davis	6-7	4,840	6.7	37	3.55	36
	Box Elder		6,410	6.5	38.5	3.32	37
Group XII (1 district)	Tooele	Less than 6	8,480	6.5	38.5	4.88	27
	Park City		9,010	4.7	40	2.87	39

<sup>1</sup> Estimated true value.



For the purpose of presenting in a somewhat simpler and more concise manner the wide differences between ability to provide school revenue and effort to do the same, a group of eight districts was selected on the basis of estimated true valuation per school child. Table 30 presents these districts and shows for each its ability as measured not only by its valuation but by the possible bonded debt per child it may incur. Table 30 shows further for each district its effort as represented by its equalized or true tax rate and its total expenditure per school child in average daily attendance. The equalized rates given in Table 30 are taken directly from Table 29, a reference to which will enable the interested reader to determine the rates actually levied.

TABLE 30.—*Inequalities in ability and effort of eight Utah school districts, 1924-25<sup>1</sup>*

Districts <sup>1</sup>	Ability				Effort				
	Valuation and bonding power				Total annual expenditure per child in average daily attendance				
	Estimated true valuation per child, 6-18 years		Possible bonded indebtedness per child, 6-18 years		Equalized tax rate <sup>4</sup>				
	Rank in—		Rank in—		Rank <sup>3</sup>		Rank <sup>3</sup>		
	Amount	State <sup>2</sup>	Present group <sup>3</sup>	Amount	Rank	Mills	Rank <sup>3</sup>	Amount	Rank <sup>3</sup>
Grand	\$15,450	1	1	\$520	1	4.73	7	\$100	1
Park City	11,780	2	2	591	2	2.87	8	100	2
Jordan	13,630	4	3	545	3	4.90	6	118	3
Iron	9,770	13	4	391	4	5.52	4	85	4
Wasatch	6,210	25	5	248	5	5.84	3	74	5
Washington	3,060	38	6	123	6	5.25	5	57	6
Wayne	2,900	39	7	118	7	8.25	1	52	7
Garfield	2,650	40	8	106	8	6.6	2	49	8

<sup>1</sup> Districts listed in the order of valuation per child.

<sup>2</sup> Rank among Utah's 40 districts.

<sup>3</sup> Rank in present group of 8 districts.

<sup>4</sup> Rate levied in 1924 for 1925 revenue. The rates here given show what rate it would have been necessary to levy if property had been assessed at its true value, as required by law. The rates actually levied by these 8 districts are shown in Table 28.

From Table 30 we see that the two districts ranking highest with respect to ability to provide school revenue, namely, Grand and Park City, ranked lowest as to their effort, and the two districts ranking lowest as to ability ranked highest as to effort. Park City, which has a valuation of nearly \$15,000 per child and a bonding power of \$591, levies a tax of less than 3 mills and is able to expend \$100 per child in average daily attendance. Contrast with Park City, Wayne which levies a tax of over 8 mills on a valuation of less than \$3,000 per child and is able to expend only \$52 per child. A comparison of the situations existing in Iron and Wasatch and in Grand and Garfield will show similar conditions.

## INEQUALITIES INEVITABLE UNDER UTAH'S PRESENT SYSTEM

A further consideration of the Utah situation would show that the conditions brought out by the facts just stated are characteristic of the State as a whole. A principle of taxation to-day universally recognized as essential to any sound system is that as wealth decreases, power to pay decreases and rates of taxation should be lower. This principle is the basis of practically all systems of personal income taxes. These systems commonly exempt from taxation all incomes falling below a certain amount. Then beginning with a low rate on small taxable incomes, the rate gradually increases as the income increases. One of the many and great evils of the general property tax as found in Utah, as well as wherever else employed, is that it not only makes no provision for the recognition of the principle just referred to, but that it violates this principle at every turn. Utah is, however, the only one of the 15 States thus far studied by the writer of this report which specifically provides by law that the richer the community the lower shall be the maximum tax rate it may levy.

By the laws of Utah, county districts are divided into six classes and city districts into four classes on the basis of assessed valuation per school child, 6 to 18 years. In every case the lower the valuation per child the heavier is the maximum tax rate allowed by law. Table 31 shows the maximum rates fixed by the act of 1923 for county districts of the first class and for cities. The act of 1923 provided that districts which in 1922 had levied a heavier tax than that provided for by the act of 1923 shall be allowed to employ as their maximum the 1922 rate. Attention should, perhaps, be called to the fact that the maximum rates provided by the law cover only rates levied for the support and maintenance of schools, the purchase of school sites, and the erection of school buildings. They do not include rates levied for interest and for sinking funds. They are also exclusive of the special building tax, not to exceed 10 mills, which may be levied upon the vote of the qualified electors of the district.



TABLE 31.—*Utah maximum district tax rates as fixed by act of 1923*<sup>1</sup>

## I. CITY DISTRICTS

Basis: Valuation per child <sup>2</sup>	Maximum rate <sup>3</sup> Mills	Basis: Valuation per child <sup>2</sup>	Maximum rate <sup>3</sup> Mills
Less than \$3,000	12	\$4,000 to \$5,000	10
\$3,000 to \$4,000	11.5	More than \$5,000	9

II. COUNTY DISTRICTS OF THE FIRST CLASS <sup>4</sup>

Basis: Valuation per child <sup>2</sup>	Maximum rate <sup>3</sup> Mills	Basis: Valuation per child <sup>2</sup>	Maximum rate <sup>3</sup> Mills
Less than \$2,000	12	\$4,000 to \$4,500	8.5
\$2,000 to \$2,500	11	\$4,500 to \$5,000	7.5
\$2,500 to \$3,000	10	More than \$5,000	7

<sup>1</sup> Utah School Law, 1925, p. 53, sec. 4707.<sup>2</sup> Valuation per school child 6-18 years.<sup>3</sup> When the maximum rate here provided is less than the rate levied in 1922 the rate levied in 1922 becomes the maximum.<sup>4</sup> Utah School Law, 1925, pp. 32-33, sec. 4624.

The most obvious fact brought out by Table 31 is that the present system of school taxation in Utah is one which inevitably creates and perpetuates inequalities. At the present time no less than 23 States in the Union provide what are commonly known as State equalization funds. Utah not only fails to provide any such fund but she has enacted into existence a system of school taxation which makes impossible the equalizing of school burdens. The full effects of this system can only be determined by discovering to what extent Utah's 40 school districts will be able to produce equal funds if each district were to levy the maximum tax rate provided by law. In Table 32 Utah's districts have been arranged in eight groups according to the maximum legal tax rate allowed. For each district is shown the sum which the district could produce were it to levy the maximum tax rate on its 1925 assessed valuation, and on its equalized true valuation.

TABLE 32.—Comparison of proceeds of maximum district rates on assessed and on equalized or true valuations, 1924-25<sup>1</sup>

Group, number of districts, and rate	Districts	Tax proceeds per child 6-18 years if levied upon—			
		Assessed valuation		Equalized valuation	
		Rank	Amount	Rank	Amount <sup>2</sup>
Group I, 15 districts, 7 mills <sup>3</sup>	Jordan	1	\$65.83	4	\$95.40
	Park City	2	63.09	2	103.42
	Grand	3	59.47	1	108.13
	Tooele	4	59.33	12	79.14
	N. Summit	5	57.85	5	94.84
	S. Summit	6	53.12	8	87.07
	Morgan	8	49.14	11	80.55
	Box Elder	9	44.87	7	87.98
	Tintic	11	38.55	23	60.23
	Idaho	12	37.90	24	59.31
	Granite	13	37.52	28	54.37
	Daggett	14	37.35	17	67.95
	Weber	15	37.20	18	66.42
	Carbon	19	35.19	9	81.84
	Nebo	25	32.17	3	96.18
Group II, 7 districts, 7.5 mills	Davis	17	36.27	16	68.42
	Rich	18	36.10	19	65.63
	Mallard	20	34.44	13	78.26
	Wasatch	21	34.00	35	46.58
	Iron	22	33.59	22	63.26
	Cache	23	33.50	10	81.69
	Beaver	24	32.93	21	63.33
	Kane	29	27.93	32	50.77
	Alpine	30	27.90	15	69.75
	Salt Lake City <sup>4</sup>	7	51.54	14	74.69
Group IV, 1 district, 9 mills	Emery	26	29.63	34	47.03
	Sevier	27	29.48	30	52.64
	Piute	28	28.49	31	51.80
Group V, 7 districts, 10 mills	N. Sanpete	31	27.37	25	58.22
	S. Sanpete	32	26.80	26	57.02
	San Juan	34	25.11	36	45.64
Group VI, 3 districts, 11 mills	Provo <sup>5</sup>	35	25.07	6	89.02
	Duchesne	37	22.80	37	36.77
	Ogden <sup>6</sup>	10	42.82	33	48.75
Group VII, 2 districts, 11.5 mills	Murray <sup>7</sup>	16	36.70	29	53.19
	Logan <sup>8</sup>	33	25.36	20	65.04
	Utah <sup>9</sup>	36	23.33	27	55.54
Group VIII, 15 districts, 12 mills	Wayne	38	19.51	39	35.47
	Garfield	39	17.51	40	31.84
	Washington	40	16.91	38	36.76

<sup>1</sup> Unless otherwise stated all data are from Utah superintendent of public instruction, Biennial Report, 1922-23, p. 112.

<sup>2</sup> This is the maximum rate provided by the act of 1923. See Table 31, and especially footnote 3 accompanying the same. The act of 1923 undoubtedly assumed that assessed valuations would be true or full valuations.

<sup>3</sup> Cities.

<sup>4</sup> Computed on basis of valuations given above in Table 20.

From Table 32 we see that were the school districts of Utah to levy the maximum legal rates provided in the act of 1923 on assessed valuation, the sums produced would vary all the way from \$16.91 per child in Washington to \$65.83 in Jordan.

Turning our attention to the 15 districts included in Group I, each of which is permitted to levy 7 mills, we discover that the sums produced by the districts in this one group vary all the way from \$32.17 per child in Nebo to \$65.83 in Jordan. Utah's present system of support not only requires that the districts of less financial ability levy the heavier taxes but demands that they shall be satisfied with revenues amounting all the way from one-half to one-fourth that



which the richer districts can produce with far less effort. Were the maximum tax rates levied on equalized valuations the sums produced would vary all the way from \$31.84 in Garfield to \$108.13 in Grand. The facts presented in Table 32 are summarized in Table 33, in which is presented a scale of proceeds which would be realized from levying the maximum legal tax, and the number of districts which could produce this amount if the tax were levied on assessed valuation and on true valuation, respectively.

TABLE 33.—*Summary of comparison of proceeds of maximum district rates on assessed and on equalized or true valuations, 1924-25*

Proceeds per child 6-18 years of maximum legal tax	Number of districts producing at least amount shown on line	
	Assessed Valuation	Equalized Valuation
\$100-\$110	2	1
\$90-\$100	2	1
\$80-\$90	2	1
\$70-\$80	2	1
\$60-\$70	2	1
\$50-\$60	2	1
\$40-\$50	2	1
\$30-\$40	2	1
\$20-\$30	12	1
\$15-\$20	3	1
Total	40	40

From Table 33 we see that were the districts of Utah to levy the maximum tax rates permitted by law, 12 districts would secure sums ranging between \$20 and \$30 per child; 15 districts between \$30 and \$40 per child; and only 10 districts would be able to provide \$40 per child while 3 would have to be satisfied with less than \$20 per child.

#### SUMMARY

The last two sections have presented a detailed account of the inequalities resulting from Utah's present system of school support. It has been shown that educational opportunities in Utah are not only disastrously unequal but that Utah's present system is one which creates and perpetuates these inequalities. Fifty-seven per cent of the current school revenues in Utah is furnished by the school districts; these districts have been shown to be so unequal in ability as to render practically hopeless the possibility of their ever producing revenues approaching equality. The situation, bad enough in itself, has been greatly intensified by the adoption of a plan of taxation which definitely places an increasingly heavier burden upon the poorer districts. When Utah adopted what was essentially a county unit system she made an important step in the direction of equalizing

school revenues, school burdens, and educational opportunities. As long as Utah, however, provides no plan for offsetting the inequalities which exist and will always exist among her school districts, so long will school revenues, school burdens, and educational opportunities continue to vary widely from district to district. The State and the State alone is capable of remedying the situation. Postponing for the present our answer to the question "how this may best be done," let us now ask from what sources Utah derives her school revenues and how her school burden is at present divided among the units which furnish her school funds.

#### RECEIPTS AND SOURCES OF SCHOOL REVENUE—FEDERAL, STATE, AND DISTRICT, 1925

Utah derives her funds for public elementary and high schools from Federal, State, and district funds. We have seen (see Table 6) that in 1925, Utah's total expenditure for public elementary schools and high schools amounted to \$9,719,772.37. Her total receipts from all sources for this same year amounted to \$9,984,337.67. Of this total 64.5 per cent came from district funds (including both revenue and nonrevenue receipts); 35.03 per cent from State funds; and 0.47 per cent from Federal funds. In other words, out of every \$100 received for elementary and high schools in 1925, \$64.50 came from the districts, \$35.03 from the State, and 47 cents from the Federal Government. Table 34 shows the chief funds, Federal, State, and district, from which Utah derived her moneys for elementary schools and high schools in 1925. Table 35 shows what percentage of the total receipts was contributed by each of these funds. Figure 36, based on Table 25, shows the part of each \$100 provided by the districts, the State, and the Federal Government.

TABLE 34. *Source analysis of Utah's total receipts for elementary and high schools, 1925*

Source	Amount
Federal funds:	
Smith-Hughes subventions for vocational education	\$19,626.58
Federal forest reserve (paid directly to counties)	26,685.54
Total Federal	46,312.12
State funds:	
Permanent common-school fund—	
State land and interest fund	368,166.48
State school taxes—	
State district-school fund (4.8-mill tax)	3,013,447.52
State high-school fund (0.2-mill tax)	91,806.39
Other State funds	4,202.00
State appropriations—	
State board of education	19,735.00
Total State	3,497,357.39



TABLE 34.—*Source analysis of Utah's total receipts for elementary and high schools, 1924-25—Continued*

Source	Amount
<b>District funds</b>	
Revenue receipts—	
Taxes for maintenance	\$4,070,146.48
Taxes for debt service	664,512.81
Interest on sinking funds and on deposits and loans	50,381.98
Tuition fees	69,630.13
Federal forest reserve (included under Federal funds)	
All other revenue receipts	70,369.17
Total district revenue funds	5,874,998.27
Total revenue receipts	9,298,667.78
Nonrevenue receipts	
Bond sales	344,434.28
Temporary loans for current expense	128,296.81
All other nonrevenue receipts	113,068.80
Total district nonrevenue receipts	585,799.89
Grand total revenue and nonrevenue receipts	9,884,467.67

<sup>1</sup> One-half the biennial appropriation 1923-24.

<sup>2</sup> Includes property sales and insurance adjustments, \$60,893.63; sinking-fund moneys returned, \$22,129.64; miscellaneous, \$30,015.56.

TABLE 35.—*Percentage analysis of receipts of Utah elementary and high schools revenue and nonrevenue for 1924-25*

Funds	Per cent of total
<b>Revenue receipts</b>	
Federal funds	
Smith-Hughes, subventions for vocational education	0.26
Federal forest reserve fund (paid directly to districts)	.27
Total	.47
State funds	
State school land, interest and rental, permanent fund	4.69
State district-school fund (1.8-mill tax)	90.18
State high-school fund (0.2-mill tax)	.92
State appropriations	.20
Other State funds	.04
Total	45.03
District funds	
Tax for maintenance	44.78
Tax for debt service	6.26
Interest on sinking funds and deposits and loans	.50
Tuition fees	.70
All other revenue receipts	8.70
Total	58.64
<b>Nonrevenue receipts (district funds):</b>	
Bond sales	3.47
Temporary loans for current expenses	1.28
All other nonrevenue receipts	1.13
Total	5.88
	100.00

## FEDERAL AID

The Federal funds contributing to the support of elementary schools and high schools in Utah are: The forest reserve fund, the Smith-Hughes fund, and the Federal Government royalty fund. Each of these will be considered briefly in turn.

## THE SMITH-HUGHES SUBVENTIONS

From the Smith-Hughes fund the Federal Government grants subventions to the States for three general classes of expenditure, as follows: (1) For the salaries of teachers, supervisors, and directors of vocational agriculture; (2) for the salaries of teachers of home economics, trade, and industrial subjects; and (3) for the professional training of teachers of the vocational subjects included in (1) and (2).

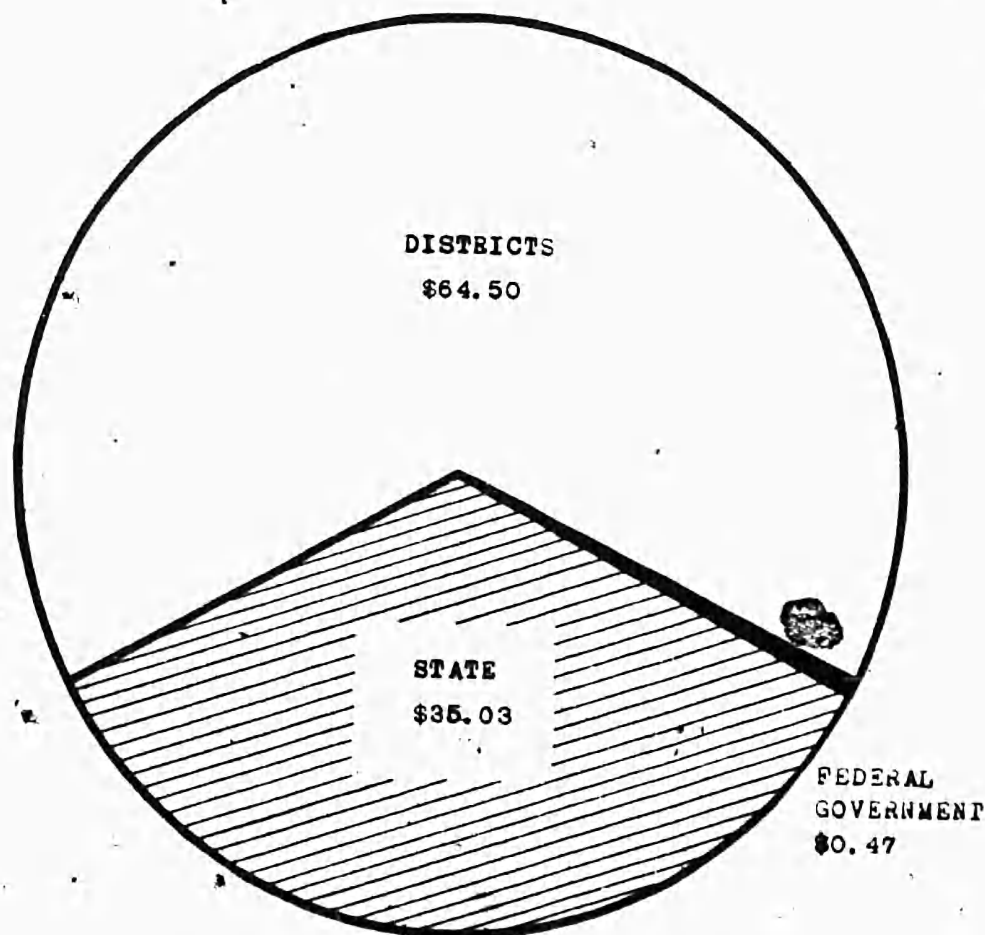


FIG. 36. --Source of each \$100 for Utah's schools in 1925.

Utah, by acts passed in 1917 and 1919, accepted the terms and provisions of the congressional vocational education act, commonly known as the Smith-Hughes Act, and designated the State treasurer as custodian of all Federal subventions and all State appropriations provided to match the Federal fund. Many standards must be met and many conditions fulfilled by the State in order to receive Smith-Hughes money. The following three are of especial importance from the standpoint of school finance: (1) The State must match dollar for dollar the Federal subvention; (2) Smith-Hughes moneys are paid only as reimbursements for moneys already actually spent by the



State: (3) the allotment for any year will be diminished by an amount equal to the unspent balance of the previous year.

The Utah law empowers any board of education to use its district's quota of the vocational fund (including Smith-Hughes moneys and the moneys provided by the State to match the same) for the following purposes: (1) All day vocational schools and classes; (2) evening schools or classes giving instruction supplementary to the daily employment of students; (3) part-time schools or classes; (4) to promote education in health and citizenship; (5) 12-month supervision as provided in the educational program enacted in 1919. The law further provides that if the moneys available are not sufficient to meet the legal demands the State board for vocational education shall have the power to prorate among the districts the amount available. It should be noted that the law fails to provide for the establishment of any separate vocational education funds.

#### FEDERAL FOREST RESERVE COUNTY FUNDS

One of the unique features of Utah's economic situation and one which affects directly the possibilities of deriving school revenue is the large proportion of the area of the State still belonging to the United States, and which is therefore not subject to taxation. Twenty-nine counties contain Federal forest reserves, varying in area from fourteen-hundredths of a square mile to 3,187 square miles, and in the proportion of the county which they constitute from five one-hundredths of 1 per cent in Davis County to 72 per cent in Emery. The following table shows the counties of Utah containing Federal forest reserves arranged in the order of the percentage of the total area of the county occupied by the reserve. The area of the reserve in square miles is also shown.

From Table 36 we see that in 4 of the 29 counties containing Federal forest reserves, the reserve occupies more than 40 per cent of the total area of the county; in 6 counties it occupies between 30 and 40 per cent; in 4 counties, between 10 and 30 per cent; and in 13 between 1 and 10 per cent. In only 2 counties does the area occupied by the national forests constitute less than 1 per cent of the area of the counties. It will be readily seen that this reserving by the Federal Government of lands affects to a marked degree the proportion of the county's area upon which either local or State taxes may be levied. We have already noted that the Emery district maintains her high schools only four months in the year as free schools, and that during the remaining four months they are conducted as tuition schools. From Table 36 we see that over 71 per cent of the area of Emery County is occupied by a Federal forest reserve.

TABLE 36. — *Federal forest reserves in Utah counties*

Counties	Per cent of total area in Federal forest reserve		Area of reserve in square miles	
	Rank	Per cent	Rank	Area
Emery	1	71.56	1	3,186.9
Sevier	2	55.24	4	1,091.5
Wasatch	3	49.33	10	573.7
Utah	4	43.72	15	333.6
Summit	5	38.06	5	711.8
Sanpete	6	37.51	8	606.2
Daguerre	7	36.21	16	307.8
Richmond	8	35.31	3	1,153.4
Utah	9	32.40	7	659.7
Garfield	10	30.38	2	1,590.6
Cache	11	29.98	14	349.0
Washington	12	24.19	9	596.3
Salt Lake	13	17.34	22	131.1
Iron	14	11.53	13	375.5
Wayne	15	9.77	17	242.0
San Juan	16	9.11	6	707.2
Uintah	17	9.46	12	406.7
Millard	18	6.76	11	443.0
Reed	19	6.42	25	66.2
Beaver	20	5.76	21	153.4
Juab	21	4.93	20	168.0
Kane	22	4.76	18	200.8
Carbon	23	3.29	26	48.9
Tooele	24	2.73	19	187.0
Grand	25	2.53	24	93.6
Box Elder	26	2.14	23	176.7
Weber	27	1.55	27	8.4
Morgan	28	.28	28	1.8
Davis	29	.05	29	.14

Rank among the 29 counties containing Federal forest reserves.

The Federal Government seeks to compensate counties containing Federal forest reserves for the loss of revenue which they sustained, owing to the fact that forest reserves are not subject to State or local taxation. In 1908 Congress enacted a law providing that 25 per cent of all moneys received by the Federal Government from each forest reserve during any fiscal year shall be paid at the end thereof to the State or Territory in which said reserve is situated, to be expended as the State or Territorial legislature may prescribe for the benefit of the public schools and public roads of the county or counties in which the forest reserve is situated. As indicated in Table 35 the moneys paid to the various counties of Utah constituted in 1925 less than three-tenths of 1 per cent of the total receipts for elementary schools and high schools.

#### FEDERAL ROYALTY FUND

The Federal royalty fund owes its origin to an act of Congress, approved February 23, 1920, which provides that deposits of coal and other nonmetallic minerals in lands owned by the United States containing such deposits may, with certain exceptions, be leased to any association or individual for the purpose of exploiting the mineral products. Under the terms of this act Utah, in common



with certain other public-land States in which such lands are situated, receives 37.5 per cent of the moneys paid to the United States as bonuses, royalties, and rentals for the lease of such lands. The Federal act provides that the moneys received by the several States shall be devoted to public roads and to education, but allows the individual State to determine what proportion of the proceeds shall be devoted to either of these projects. The Utah Legislature in 1923 enacted a law devoting the entire proceeds from this source to the principal of the State permanent school fund.

According to the Commissioner of the General Land Office (see Annual Report, 1925, p. 63), the total amount paid to Utah (1921 to 1925, inclusive) from the Federal royalty fund amounted to \$49,775.56. In view of the fact that these moneys are added to the principal of the permanent school fund, they contribute to annual expenses only as they become invested as a part of this fund, thereby yielding interest.

It may be of interest to note that of the 13 States receiving grants from the Federal royalty fund, in all but two, California and Wyoming, the sums received have been of negligible importance up to the present time. From 1921 to 1925, inclusive, California had received \$2,391,133 and Wyoming \$12,494,726. Wyoming devotes 50 per cent of her revenue from this source to public schools, and is able from this fund to provide approximately \$250 a year for every elementary-school teacher and \$375 for every high-school teacher.

#### STATE FUNDS

A reference to Table 35 will show that the moneys which the State provided for elementary schools and high schools in Utah are derived from five major sources: (1) The permanent school fund, officially known as the State school fund; (2) the State district school fund; (3) the State high-school fund; (4) State appropriations; (5) miscellaneous sources. In view of the fact that the moneys derived from State appropriations and miscellaneous sources constitute less than one-fourth of 1 per cent of the total receipts, we may confine the present account to the first three funds.

##### (1) STATE SCHOOL FUND

Upon her admission into the Union Utah was granted by the Federal Government for the support of public schools sections 2, 16, 32, and 36, amounting to approximately 5,844,000 acres. The Constitution of Utah provides for the creation of a perpetual fund to be called the State school fund and devotes to this fund the following moneys and lands: (1) The proceeds of all lands that have been or may be granted by the United States to this State for the support

of common schools; (2) the proceeds of escheats and forfeitures; (3) unclaimed fees or dividends of corporations; (4) the proceeds of the sale of timber, mineral or other property from school or State lands other than those granted for specific purposes; (5) 5 per cent of the net proceeds of the sale of public lands lying within the State. To these five sources, Utah, as already noted, by an act passed in 1923, added a sixth, namely, grants from the Federal royalty fund. The chief sources from which the State school fund has thus far been derived are the four sections granted in each congressional township.

The income derived from the invested principal of the State school fund and from moneys on deposit and school lands belonging to this fund is known as the State school land interest and rental fund, commonly referred to as the State land, interest, and rental fund.

The State school land interest and rental fund—i. e., the income from the State school fund—in 1925 was \$368,166.48, which sum amounted to \$2.64 per school census child, 6 to 18 years. On June 30, 1926, the principal, exclusive of unsold school lands, was reported as amounting to \$5,002,450.88. The value of the unsold school lands belonging to this fund and estimated at \$2.50 per acre amounts to \$11,250,000, making the total prospective value of the fund approximately sixteen and a quarter million dollars. The condition of the State school fund and its present and prospective value, as reported on June 10, 1926, are shown in Table 37.

TABLE 37.—*Condition of Utah permanent State school fund, present and prospective value, June 10, 1926*

Securities—moneys and lands	Value
INVESTMENTS	
First mortgage farm loans	\$4,200,493.72
Bonds—school district, municipal, irrigation	55,000.08
Moneys on deposit in banks	215,057.16
Total fund exclusive of unsold school lands	5,002,450.88
4,000,000 acres of unsold school lands surveyed and unsurveyed	11,250,000.00
Total estimated value of prospective fund	16,252,450.88

† Estimated at \$2.50 per acre.

It is evident from Table 37 that Utah's permanent State school fund gives little promise of becoming any such princely endowment as similar funds derived from Federal grants to Minnesota, South Dakota, and some other States. To Utah, as to Arizona and New Mexico, the Federal grant was twice that previously made to any State. This increase was undoubtedly due to the recognition that these three States contained vast regions of desert lands.



*Management and investment of the State school fund.*—The management, sale, and lease of State lands, as well as the investment of moneys derived from the sale of same, is intrusted to the State land board, consisting of the governor, the secretary of state, and the attorney general.<sup>1</sup> Moneys derived from the sale of school lands may be invested in the following securities: (1) The following classes of bonds: Government, State, county, or school district; (2) scrip or warrants issued against funds to be raised by special or local taxes or assessments under the provisions of the laws of Utah, section 3806-3807; (3) warrants on the reservoir land-grant fund issued under the provisions of section 5664; (4) mortgages on improved farm lands.

*Recommendations.*—Attention has been called in numerous reports to the risks involved in investing State funds in farm loans. The warning, originally based upon a study of the experience of New York State, has in recent years been amply justified by the experience of a number of Western States. Utah should repeal the provision of her laws providing for the investment of her permanent State endowment funds in farm loans. She should also repeal those provisions which make it permissible to invest these funds in bonds of the State of Utah, or in any other bonds depending upon the credit of the State.

The State superintendent of public instruction should be added to the ex officio officers who constitute the State land board. He should be a member of this board because no one would be more zealous in protecting the interests of the schools and more insistent upon sound investments, and also because of the fact that he travels widely throughout the State and is in a position to keep in touch with land values.

A topic of supreme importance, which it might seem would naturally be treated at this point, is the method of apportioning the income of the State school fund, but consideration of this subject will be postponed to a subsequent section.

However well the State school fund may be managed, there is every reason for believing that its relative importance as a source of school revenue will decrease. In 1904 this fund provided 21 per cent of Utah's total school receipts. In 1920 it provided only 4.6 per cent, and in 1925 only 3.69 per cent. The history of school support in other States warrants us in the conclusion that there is little hope that permanent State school funds will in the future provide any significant proportion of total school receipts. Utah, in common with our other States, must look to some form of taxation for meeting her increasing school costs. For this reason especial interest attaches to the State district-school fund, which we shall now consider.

<sup>1</sup> Laws of Utah, 1925, p. 51, ch. 31; Compiled Laws of Utah, 1917, p. 806, sec. 3800.



## (2) STATE DISTRICT-SCHOOL FUND

The State district-school fund is derived from a State general property tax levied in accordance with a constitutional provision which requires that there shall be levied annually a State tax of a rate sufficient to provide an amount which, added to any other State funds available for district-school purposes, shall equal \$25 for each person of school age in the State, as shown by the last preceding school census.

It will be seen that this is not a fixed rate. The rate is determined annually upon the basis of two factors, namely, the number of children 6 to 18 years of age and the amount available from the State school land interest and rental fund.

It is the evident intention of the constitution to provide \$25 for each child of school age, but owing to a number of defects the fund has never amounted to this. The law is defective, first of all, in making the basis of the State district school fund the previous year's census. Thus the school census, in 1925, amounted to 139,457 children, but the State district school fund for this year was provided on the basis of the preceding year's census, namely, 137,650 children. It was necessary, therefore, to apportion the State district school fund in 1925 among 1,807 children more than the number for whom the fund had been provided. It is asserted, moreover, that the State board of equalization, in its eagerness to keep down the State tax rates, frequently overestimates the amount which will come from the income of the State permanent school fund and from tax sale redemption proceeds. The power of determining and fixing the rate to be levied for the State district school fund should be placed in the hands of the State board of education. The State board of education should be empowered further to estimate the school census for the year for which the district fund is to be provided, rather than depend upon the census of the previous year. Such an estimate could be easily arrived at by a study of trends in population. The law, in making school census the basis of distribution of the district tax, excludes children attending public kindergartens, although all school districts of a population of 2,000 and upward are required by law to maintain one or more kindergartens open to children between the ages of 4 and 6 years.

In the year 1924-25 the State school land interest and rental fund provided \$2.64 per school census child and the State district school fund \$21.61, making a total from these two funds of \$24.25. It will be seen that this amounted to 75 cents less per child than the amount contemplated in the constitutional provision.

## (3) STATE HIGH-SCHOOL FUND

A high school may be established by either one of two methods. The board of education of a county district of the first class or of



a city district can, upon its own initiative, establish and maintain a high school. In districts where the board of education fails to do this, if a majority of the taxpayers of any voting precinct or precincts having a school population of not less than 1,200, within a county school district of the first class, shall petition the board for the establishment and maintenance of a high school the board is required by law to establish the same. The following restrictions, designed to prevent the undue multiplication of high schools, are provided by law: (1) The junior and senior years of a high school may not be established until the number of students in such years justifies such establishment as recommended by the State board of education; (2) no petition shall be considered from any precinct, any part of which is within 5 miles of an established high school; (3) no high school shall be located within 12 miles of any existing high school.

The State high-school fund, designed to aid districts in supporting and maintaining high schools, is derived from a State 0.2 mill tax. In 1925 the State high-school fund amounted to \$123,700.76 and provided a quota of \$5.03 for each high-school pupil attending 20 weeks.

The law requires that all high schools claiming any benefit from the State high-school fund must be inspected at least once a year. The salaries and traveling expenses of the State high-school inspector are paid out of the State high-school fund. The remainder of the fund is apportioned among the school districts upon the basis of the number of pupils who attend high school for a period of at least 20 weeks. The fund is apportioned in two allotments. In January the State board of education apportions 70 per cent of the high-school fund among the districts upon the basis of the estimated number of students who will attend high school during a period of 20 weeks. In June the board apportions the remainder of the high-school fund among the districts upon the basis of the number of high-school pupils who have actually attended high school for at least 20 weeks.

#### (4) STATE APPROPRIATIONS

One of the striking characteristics of the Utah system of school support is the almost entire absence of what are commonly known as special appropriations. The only special appropriations made at the present time are those for salaries and wages, office expenses, travel, and equipment of the State board of education, and the appropriations to match the Smith-Hughes subventions.

#### (5) MISCELLANEOUS SOURCES

*District funds.*—In 1925, \$64.50 out of every \$100 provided for public schools in Utah was furnished by the school districts. Out of

this \$64.50, \$56.74 were derived from taxes, \$3.45 from the proceeds of bond sales; and of the remaining \$3.51, 50 cents came from interest on sinking funds and on deposits, 70 cents from pupils' tuition fees, \$1.28 from loans, and the remainder from miscellaneous sources of negligible importance.

Table 38 presents an analysis of the revenues provided by school districts in 1925. In this analysis receipts are divided into revenue and nonrevenue receipts and under each of these major divisions are shown the sources of the amount contributed by each source and the percentage which this amount is, first, of the district revenue, and second, of the total school revenue.

TABLE 38.—*District receipts*

(Analysis of Utah school revenues provided by school districts, 1924-25)

Source	Amount	Per cent furnished by districts	
		Of district revenue	Of total revenue
Revenue receipts:			
Taxes for maintenance.....	\$4,970,146.18	77.2	49.78
Taxes for debt service.....	694,512.81	10.8	6.96
Interest on sinking fund and on deposits and loans.....	50,384.98	.8	.5
Tuition fees.....	69,650.13	1.1	.7
All other revenue receipts.....	70,304.17	1.1	.7
Total revenue receipts.....	5,854,998.27	91.0	58.64
Nonrevenue receipts:			
Bond sales.....	344,434.28	5.3	3.45
Loans.....	128,236.51	2.0	1.28
All other nonrevenue receipts.....	113,038.80	1.7	1.13
Total nonrevenue receipts.....	585,709.59	9.0	5.86
Grand total revenue and nonrevenue receipts.....	6,440,708.16	100.0	64.50

*School taxes.*—Many of the most important provisions affecting school taxes and bonds have been presented in the section on "Causes of Educational Inequalities." The present discussion may, therefore, confine its attention chiefly to the purposes for which districts may levy taxes and issue bonds. The chief projects for which school taxes may be levied by districts are set forth in the provisions describing the method of levying the same.

The provisions with respect to the levying of district taxes are identical in the case of county districts of the first class and city districts, except as to the maximum rates which may be levied. On or before May 1 the board of education is required to prepare an estimate of the funds needed to finance the following projects during the ensuing year commencing July 1: (1) Support and maintenance of schools (current expenses); (2) purchasing of school sites; (3) erection of buildings; (4) interest on bonds; (5) sinking funds; and



(6) redemption of bonds. The foregoing estimate shall be certified to the county commissioners, who shall levy such a tax as will, as nearly as possible, raise the amount required by the board's estimate, such tax of course subject to the limits provided by law.

In addition to the above tax, a special building tax of 10 mills may be levied for one or more years upon a favorable majority vote of the qualified electors for the following purposes: (1) To buy school sites; (2) to build and furnish schoolhouses; and (3) to improve school property. Particular care is taken that districts shall levy taxes required to pay interest on notes or bonds and to pay the principal when due. The law provides that if the board of education neglects or refuses to levy the annual bond and sinking-fund tax, then the board of county commissioners shall levy the same and apply the proceeds thereof to the payment of such bonds and interest.

*Bonds.*—School bonds may be issued for the purpose of (1) purchasing school sites; (2) building or purchasing schoolhouses; (3) providing furniture and necessary apparatus for school buildings; (4) improving school grounds; (5) refunding bonds; and (6) redemption of outstanding bonds. Boards of education in all districts may borrow money and issue therefor negotiable notes or bonds to provide moneys for maintaining schools, provided that such bonds shall not exceed the proceeds of the taxes for the current year. The limit just indicated may be exceeded when it is necessary to incur additional indebtedness in excess of the school taxes for the current year, provided the question of incurring such additional indebtedness shall be submitted to a vote of the qualified electors of the district and a majority vote be cast in favor of incurring the same.

Other types of district funds include the Americanization fund, already described in the paragraphs dealing with State appropriation, funds derived from pupils' tuition fees, and district teachers' pension funds.

#### TEACHERS' PENSION FUNDS

Upon the written request of a majority of the teachers employed in the public schools of any city of the first or of the second class, the board of education of such city shall authorize the organization of a public-school teachers' retirement association. Two classes of funds may be established by a teachers' retirement association: (1) Permanent fund; (2) current fund. The current fund shall be derived from two sources: (1) Deduction from teachers' salaries; and (2) appropriations made by the board of education. The law provides that there shall be deducted from the salaries of all teachers who are members of the teachers' retirement association in cities of the first and second class 1 per cent of the face of said pay roll, and "such deductions shall be paid to the treasurer of such asso-



ciation, provided that annual salaries of \$1,200 shall be the maximum salary on which dues shall be paid," and if any teacher shall receive a salary in excess of such sum, then the deduction shall be made on \$1,200 only. The board of education is required to pay into the current fund an amount equal to the total amount received from salary deductions.

Eloquent testimony to the unsatisfactoriness of such a pension system as that provided in the Utah law is found in the fact that only one city, namely, Salt Lake City, is at the present time reported to have a teachers' retirement association. The major defects of the law may be summarized briefly as follows: One per cent deductions, even when matched dollar for dollar by the board of education, will not provide an adequate pension fund. The provision that no deductions shall be made on salaries in excess of \$1,200 is contrary to all sound principles of taxation. Rather than refrain from taxing salaries above \$1,200 an increasing rate should be charged on higher salaries, just as an increasing rate is levied on larger personal incomes in practically every system of personal-income taxation.

Again, the present system provides no method of reimbursing teachers who leave the system. The law should provide that teachers who withdraw from the system should receive back all the money they have paid in, plus interest at a rate equal at least to that paid by banks on savings accounts. In like manner, provision should be made for reasonable interest in the case of the death of a member of the retirement association before retirement. The present law provides that the estate of such teachers shall be entitled to a refund of the total amount paid in to the retirement fund by the teachers but does not provide for the payment of any interest. The law is further defective in that there is no guaranty that annuitants will receive the moneys due them. On the contrary, the law specifically provides that if the funds of the retirement association are not sufficient to meet the annuities and refunds due they shall be prorated and each annuitant and claimant shall be paid pro rata his or her proportion of the funds which are available.

#### A STATE PENSION SYSTEM SHOULD BE ESTABLISHED

As previously noted, one-fourth of the women teachers in the elementary rural schools of Utah receive annual salaries not exceeding \$700. It should be evident that a State which pays such low salaries to such a large proportion of its teachers should not leave the establishment of pension funds to the voluntary action of a limited number of communities. On the contrary, Utah should take steps to establish a teachers' State pension system. This system should be placed upon a sound basis and financed in such manner as



to make it possible to pay to teachers upon retirement an annuity sufficient to enable them to meet all ordinary and reasonable costs of living.

#### DEFECTS IN PRESENT METHODS OF BUDGETING AND ACCOUNTING

In the section on "Increase and distribution of school costs," in connection with the discussion of Table 9 (see page 414), attention was called to the fact that moneys realized from the sale of bonds are charged twice, first as capital outlay and then later as debt service. It was noted that the proceeds of bond sales are charged to capital outlay at the time these moneys are expended and that again in the following years the moneys collected to redeem the bonds and expended for such redemption are charged as debt service. This is a striking example of the unsoundness of certain district accounting practices. Every business corporation realizes that without a detailed budget and accurate and definite system of accounting it is impossible to discover whether expenditures are justified or not. A request for a copy of its latest available school budget was sent to every district in the State. In only one or two cases was the budget received presented in a form which would be considered acceptable by any well-trained accountant. In most cases the budgets were totally inadequate. It should be possible from any adequate budget to ascertain differences in cost from school to school as to per pupil cost of each class of expenditure. But almost none of the budgets presented offered any basis for this and only in very few cases was there any basis for determining whether the sums asked for would be inadequate or whether they would be in excess of the needs of the district. It does not lie within the scope of the present report to outline a standardized form for school budgets, but it is recommended (1) that the State department of education shall cause to be prepared and shall furnish free to all school districts a standardized budget from which shall be in conformity with the principles now commonly recognized as essential; and (2) that the financial reports submitted by districts to the State department be so modified as to show not only expenditures by schools but the per pupil cost of each major function in each school.

#### DEFECTS IN PRESENT METHODS OF APPORTIONING STATE AID

The section on "Receipts and Sources of School Revenue" (p. 455), shows that out of every \$100 provided for elementary schools and high schools in 1925, the State furnished \$35.03. The purpose of State aid is to equalize school burdens and educational opportunities. The facts already given show that these aims are far from realized in Utah. The following will attempt to reveal



the defects in Utah's present methods of apportioning State aid, and a plan will be presented for remedying these defects.

The methods by which Utah provides and distributes her State high-school fund have been described. We have seen that this fund is raised by a general property tax of a fixed rate; namely, two-tenths of a mill (0.2 mill) and is distributed among the school districts in proportion to the number of high-school pupils that are in attendance 20 weeks.

The constitution requires that the State provide, also by a State general property tax, a fund which when added to the land interest and rental fund (the income of the permanent State school fund) will furnish \$25 for every child of school-census age (6 to 18 years). These last two funds furnished 33.87 per cent of Utah's total school receipts in 1925, whereas the State high-school fund furnished less than 1 per cent (0.92 per cent); we will, therefore, in the immediately following paragraphs, confine our consideration chiefly to the method of distributing the State land interest and rental fund, and the State district school fund, the combined income of which is apportioned as one fund, and consequently by the same method.

#### APPORTIONMENT OF STATE DISTRICT FUND AND THE LAND INTEREST AND RENTAL FUND

As already implied the land interest and rental fund and the State district school fund are apportioned among the districts by the same method and on the same basis; namely, the number of pupils 6 to 18 years old. Practical considerations have made it necessary to adopt a method somewhat different from that provided in the laws. The following account was furnished by the State superintendent of public instruction:

Not all the proceeds of the State district school fund are apportioned among the districts, for certain general costs of the school system are paid from this fund, the most important of which are as follows: (1) The actual and necessary expenses of members of the State textbook commission; (2) the expenses of members of the State board of education, who receive \$4 per day for the time actually spent in the performance of duties and are reimbursed for traveling expenses incurred in attending board meetings; (3) clerical assistance for the State board of education to the extent of \$250 per year; (4) one-third of the salary of the supervisor of vocational rehabilitation, and the director of public libraries; (5) the salaries of the supervisors of grammar grades and junior high schools; (6) the cost of blank forms, school registers, and summaries of the opinions and rulings of the State superintendent; (7) the salary and expenses of the superintendent of public instruction; (8) the



traveling expenses of the deputy of the State superintendent when attending meetings as the superintendent's representative; (9) the salaries of the staff of the State department of education; (10) the compensation and expenses of the architect or expert employed by the State to examine plans and specifications of school buildings.

In like manner the salary of the State high-school inspector is paid out of the State high-school fund and the salaries of the supervisors of vocational education are paid one-half from the State high-school fund and one-half from the Federal Smith-Hughes subvention.

The school census is taken between the 15th and 30th of October of the year in which the distribution is made and census reports must be filed by November 10. The combined income of the State district-school fund and the land interest and rental fund are thereafter apportioned in two installments.

In January the auditor informs the State superintendent of the amount standing to the credit of the State district school fund on December 31. Within 10 days after receiving this information, the State superintendent apportions the State fund among all school districts upon the basis of the school census and certifies such apportionment to the State auditor. Thereupon the auditor draws his warrant on the State treasurer in favor of each district for the amount to which it is entitled. In April the auditor informs the State superintendent of the amount to the credit of the State district fund as of March 31. Thereupon the same procedure is followed as in the case of the January apportionment.

#### REQUIREMENTS FOR PARTICIPATION

The law sets up certain conditions which must be met in order to entitle the district to its quota of the State district fund as follows: (1) The maintenance of the schools required by law during the preceding year for a period of at least 20 weeks; (2) the submission to the State superintendent of all reports required by law. No teachers, supervisors, nor superintendents shall receive compensation from any public funds, who, at the time of employment, are not the holders of certificates issued in accordance with the regulations to the State board of education.

#### DEFECTS IN PRESENT METHODS OF APPORTIONING STATE AID

The first defect in Utah's system of apportioning State aid is that aid is given to districts for educating children who are not in school at all, and who are consequently not costing the district anything. This is the inevitable result of apportioning moneys upon the basis of the school census. The school census represents the children who,



according to law, ought to be in school; but it is the average daily attendance which represents the number of children actually in school. According to official reports, 24,609 children, included in the school census in the year 1925, were not in average daily attendance.

In Granite, 1,383 children, included in the school census, were not in average daily attendance; in Jordan, 1,007; in Nebö, 1,109; in Salt Lake City, 5,602; in Ogden, 2,316. Yet the State granted to each of these districts \$24.25 for every one of these children on the assumption that the total school census represents the school burden of the district. Apportioning moneys upon the basis of school census, puts a premium on nonattendance. It is evident that every quota of State aid provided for a child included in the school census but not attending school will swell the fund for paying the cost of those who are in attendance.

A single example will make this clear. In the San Juan district 415 children were not in average daily attendance; for each of these children the district received \$24.25, making a total of \$10,064.

If we divide this amount by 519, the number of pupils in average daily attendance, we get as our quotient \$19.39. This may be regarded as a bonus paid to the district for each child it was actually educating. Adding this sum to \$24.25 we get \$43.64. The State assumes that it is paying \$24.25 for each child the district is educating. But we discover that, in reality, it is paying this district \$43.64 for each child actually in school. When the total fund apportioned to each district in 1925 upon the school-census basis is divided by the district's average daily attendance, we find that the quotas varied all the way from \$43.64 received by San Juan to \$25.93 received by Daggett.

Table 39 shows for each district in the State the number of pupils included in the school census who are not in average daily attendance—that is, not attending school (column 2). Column 3 shows the total amount which the State paid in 1925 for such pupils at the rate of \$24.25 per pupil. Dividing this total amount by the number of pupils in average daily attendance, we get a quotient which represents the bonus the State paid for each child in average daily attendance from the funds granted for pupils included in the school census but who were not in attendance. But each pupil in average daily attendance was also obviously included in the school census, and for his education the State made a grant of \$24.25 when apportioning the State funds on the school-census basis. Adding to this amount the bonus already referred to, we get the total sum which the district received for each pupil in average daily attendance from the State land interest and rental fund and the State district school fund.



In Table 40 Utah's 40 school districts are arranged in nine groups showing the inequalities in State aid per pupil in average daily attendance. For each group is shown the number and names of the districts included, together with the range of quotas per pupil in average daily attendance.

TABLE 39.—What Utah pays to school districts for school census pupils not in attendance, 1924-25

[NOTE: In the year 1924-25 the State gave to each district \$24.25 for each child in the school census]<sup>1</sup>

District	Number of school census pupils not in average daily attendance	Total received for pupils in column 2 at \$24.25 per pupil	Total average daily attendance	Bonus received from State funds for each pupil in average daily attendance <sup>2</sup>	What the district is supposed to receive for each child it is educating	What the district actually received from the State for each child it is educating	
						Amount	Rank
1	2	3	4	5	6	7	8
Alpine.....	872	\$21,148	4,005	\$5.28	\$24.25	\$29.53	19
Beaver.....	188	4,550	1,285	3.55	24.25	27.80	31
Box Elder.....	624	15,132	3,248	2.88	24.25	27.13	34
Cache.....	931	22,577	4,549	1.96	24.25	29.21	22
Carbon.....	825	20,006	4,540	4.41	24.25	28.66	24
Daggett.....	47	1,140	68	1.68	24.25	25.93	40
Davis.....	693	16,805	3,137	5.36	24.25	29.61	18
Duchesne.....	473	11,470	2,047	5.60	24.25	29.85	15
Emery.....	330	8,003	2,020	3.97	24.25	28.22	26
Garfield.....	125	3,031	1,428	2.12	24.25	26.37	39
Grand.....	66	1,601	470	3.41	24.25	27.66	33
Granite.....	1,383	33,538	3,817	5.77	24.25	30.02	13.5
Iron.....	199	4,826	1,752	2.79	24.25	27.04	35
Jordan.....	1,007	24,420	4,108	5.82	24.25	30.07	12
Juab.....	104	2,522	1,181	2.13	24.25	26.38	38
Kane.....	125	3,031	525	5.77	24.25	30.02	13.5
Millard.....	558	13,532	2,961	4.57	24.25	29.82	16
Morgan.....	107	2,595	656	3.96	24.25	28.21	27
Nebo.....	1,109	26,893	4,562	5.89	24.25	30.14	11
North Sanpete.....	556	13,483	2,218	6.08	24.25	30.33	10
North Summit.....	105	2,546	669	3.81	24.25	28.06	39
Park City.....	204	4,899	772	6.35	24.25	30.60	9
Piute.....	236	5,723	524	10.92	24.25	35.17	2
Rich.....	89	1,940	500	3.88	24.25	28.13	28
San Juan.....	415	10,064	519	19.39	24.25	43.64	1
Sevier.....	333	8,075	3,300	2.44	24.25	26.69	37
South Sanpete.....	321	7,784	2,207	3.43	24.25	27.68	32
South Summit.....	72	1,746	456	3.83	24.25	28.08	29
Tintic.....	342	8,294	1,167	7.11	24.25	31.36	7
Tooele.....	330	8,003	1,852	4.32	24.25	28.57	25
Uintah.....	731	17,727	2,214	8.01	24.25	32.26	4
Wasatch.....	157	3,807	1,475	2.58	24.25	26.83	36
Washington.....	381	9,239	1,839	5.04	24.25	29.29	21
Wayne.....	164	3,977	537	7.41	24.25	31.66	6
Weber.....	921	22,334	2,686	8.31	24.25	32.56	3
Salt Lake City.....	5,601	135,821	26,502	5.12	24.25	29.37	20
Ogden.....	2,316	56,163	8,096	6.94	24.25	31.19	8
Provo.....	659	15,981	3,231	4.95	24.25	29.20	23
Logan.....	548	13,289	2,472	5.38	24.25	29.53	17
Murray.....	371	8,997	1,127	7.98	24.25	32.23	5
Total.....	24,609	596,722	114,948				
Average per district.....	615	14,918		5.26	24.25	29.43	

<sup>1</sup> As follows: From the State district school fund \$21.61; from State land, interest, and rental fund \$2.64.  
<sup>2</sup> Each item in column 5 is the quotient of the item in column 3 divided by column 4.

TABLE 40.—*Inequalities in Utah State aid per pupil in average daily attendance, 1924-25*

Groups and number of districts	Range of quotas per pupil in average daily attendance	Districts
Group 1 (2 districts).....	More than \$33	San Juan (\$44); Plute (\$35).
Group 2 (3 districts).....	\$32 to \$33	Murray, Uintah, Heber.
Group 3 (3 districts).....	\$31 to \$32	Ogden, Tintic, Wayne.
Group 4 (5 districts).....	\$30 to \$31	Granite, Kane, Nebo, North Sanpete, and Park City.
Group 5 (8 districts).....	\$29 to \$30	Alpine, Davis, Duchesne, Logan, Millard, Provo, Salt Lake City, and Washington.
Group 6 (9 districts).....	\$28 to \$29	Cache, Carbon, Emery, Jordan, Morgan, North Summit, Rich, South Summit, and Tooele.
Group 7 (2 districts).....	\$27 to \$28	Box Elder and South Sanpete.
Group 8 (5 districts).....	\$26 to \$27	Beaver, Garfield, Juab, Sevier, and Washington.
Group 9 (3 districts).....	\$25 to \$26	Daggett, Grand, and Iron.

The second defect in Utah's present methods of apportioning State aid is that they fail to take into consideration the wide variations in the ability of districts to provide school revenues. It has been shown that in attempting to compare districts as to ability and effort we must adopt as our measures the estimated true valuation per child and the true tax rate. North Summit, with an estimated true valuation of \$13,549, received \$28.06 per child in average daily attendance, whereas Iron, with a valuation of \$9,769, received \$27.04 per child; Duchesne received only 48 cents more per child in average daily attendance than did Salt Lake City, despite the fact that its true valuation per school child is only \$3,343, while that of Salt Lake City is \$8,299. Tooele, which has a valuation per child of \$11,301, received \$28.57 for each child in average daily attendance, whereas Daggett, with a valuation of \$9,701, received \$25.93. These facts are set forth in Table 41 and in Figure 37.

TABLE 41.—*Utah's present system of State aid, 1924-1925*

	True valuation per child <sup>1</sup>	For each child actually in school <sup>2</sup>
San Juan.....	\$4,150.00	\$43.64
Murray.....	4,625.00	32.23
Salt Lake City.....	8,300.00	29.37
Duchesne.....	3,343.00	29.85
Tooele.....	11,301.00	28.57
Daggett.....	9,701.00	25.93

<sup>1</sup> Per child in the school census.<sup>2</sup> Per child in average daily attendance.

The third defect in Utah's methods of apportioning State aid is that they fail to take into consideration the differences in the efforts districts make to provide school revenues as represented by their representative tax rates. If State aid is to equalize school burdens it must be distributed in such a manner as to provide the greater



assistance for the districts making the greater effort. In other words, State aid should be proportioned inversely to the ability and directly to the effort of the district.

In 1925, the equalized, i. e., the true tax rate, levied by Murray amounted to 7.94 mills, that levied by San Juan 5.5, yet Murray received from the State only \$32 per child in average daily attendance

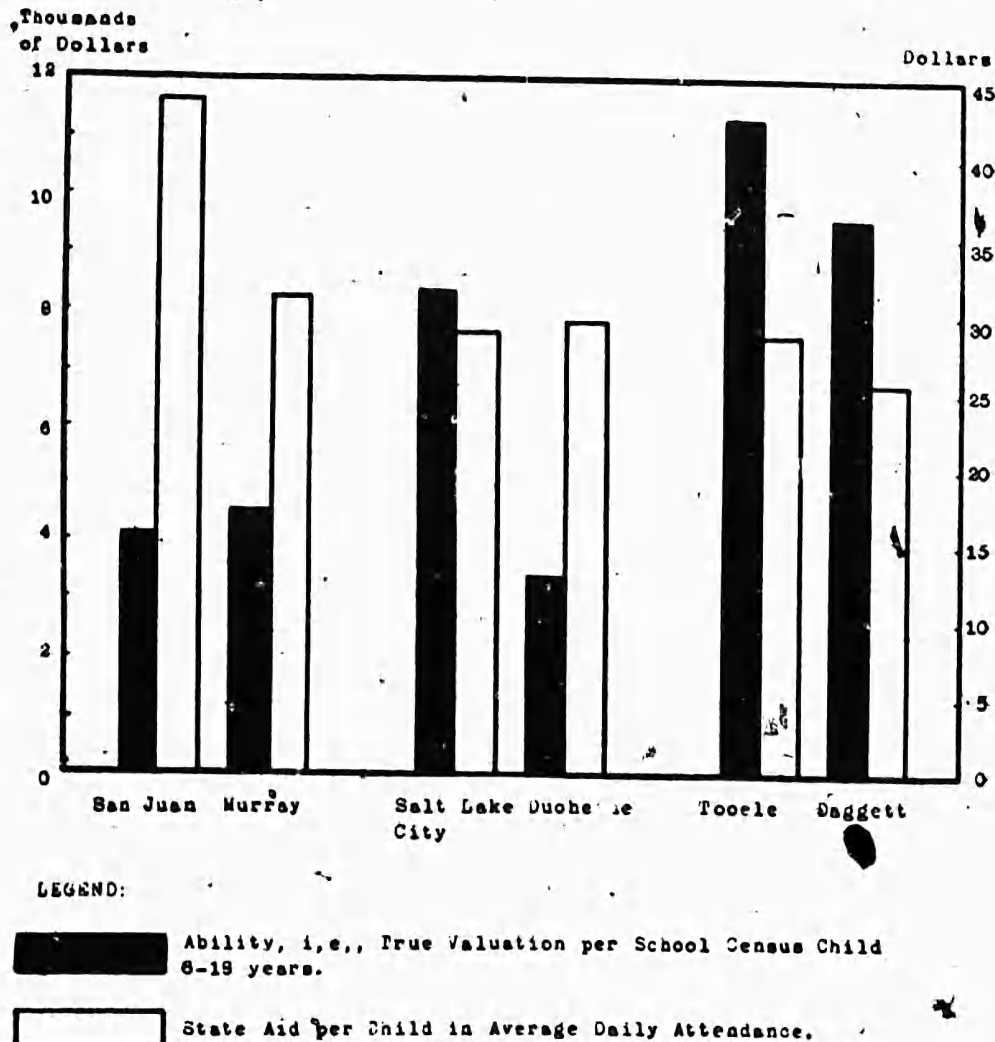


FIG. 37.—Injustice of Utah's present system of State aid: the richest district often gets the greatest help

ance, while San Juan, with a tax rate of 2.44 mills less, received \$44 per child. Again, the true or equalized school tax levied by North Summit amounted to 6.71 mills, that levied by North Sanpete to only 5.22 mills, yet North Sanpete received \$30.33 per child in average daily attendance, while North Summit received only \$28.06. The extent to which Utah's present system of State aid disregards the differences in efforts put forth by districts is shown in Table 42 and Figure 38.

TABLE 42.—What Utah's present system of State aid does for the district which makes the greater effort

District	True tax rate (mills) in 1925	State gave per child in average attendance
Wayne.....	8.25	\$31.66
Duchesne.....	7.19	29.85
North Summit.....	6.71	28.06
Garfield.....	6.6	26.37
Salt Lake City.....	5.59	29.37
San Juan.....	5.5	43.64
Grand.....	4.73	27.66
Nebo.....	2.8	30.14

NOTE.—For examples of extreme inequalities compare Wayne District with Duchesne, North Summit with San Juan, and Grand with Nebo.

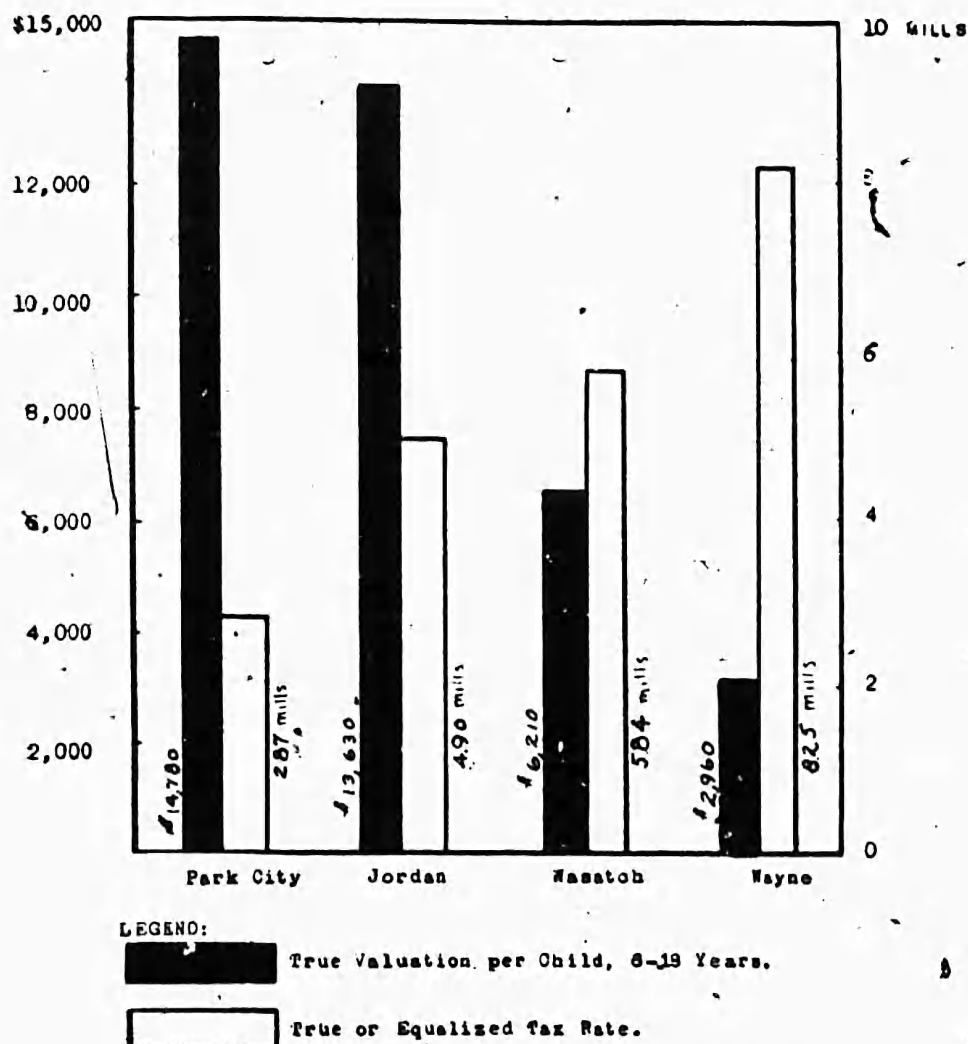


FIG. 38.—Inequalities in ability and effort of four Utah districts, 1924-25, as shown by the variation in true valuation per child and in true tax rates (Based on Table 40)

The preceding paragraphs have shown that Utah does not proportion State aid either to the ability or the efforts of the districts. The consideration already given has dealt with these two defects sepa-



rately; in actual practice they are closely related. The truth of this is revealed in Table 43, in which nine districts are presented, together with the measures (already employed and explained in earlier paragraphs) of ability, effort, and State aid, that is true valuation per census child, true tax rate, and amount of State aid for each child in average daily attendance.

TABLE 43.—*Defects in Utah's present system of State aid—Results of distributing State funds on school census basis, 1925*

[Districts arranged in order of rank in State aid per child in average daily attendance, column 7]

Districts	True valuation per child in school census	True tax rate <sup>1</sup>	Amount received for each child district is supposed to be educating <sup>2</sup>	Number of children in school census not in school <sup>3</sup>	Bonus received for each child in census not attending school <sup>4</sup>	Amount received for each child district is actually educating <sup>5</sup>
1	2	3	4	5	6	7
San Juan.....	\$4,149.76	5.5	\$24.25	415	\$19.39	\$43.64
Murray.....	4,625.41	7.94	24.25	371	7.98	32.23
North Sanpete.....	5,823.63	5.22	24.25	556	6.08	30.33
Duchesne.....	3,343.12	7.19	24.25	473	5.60	29.85
Salt Lake City.....	8,299.92	5.59	24.25	5,601	5.12	29.37
Tooele.....	11,301.11	4.88	24.25	330	4.32	28.57
North Summit.....	13,549.14	6.71	24.25	105	3.81	28.06
Iron.....	9,769.31	5.52	24.25	199	2.79	27.04
Daggett.....	9,701.05	5.11	24.25	47	1.68	25.93

<sup>1</sup> The true tax rate is the number of mills which it would have been necessary to levy on the district's true valuation in order to raise the amount of money produced by the rate actually levied in 1924 on the assessed valuation, and which to provide school revenues for 1925.

<sup>2</sup> Viz, each child in the school census 6-18 years of age.

<sup>3</sup> Viz, not in average daily attendance.

<sup>4</sup> Viz, each child in average daily attendance.

From Table 43 we see that San Juan and Murray are approximately equal in financial ability as measured by true valuation per census child, but Murray levies a tax of nearly 8 mills and San Juan a tax of 5.5 mills. Both districts, of course, receive the same amount for each child in the school census, but for each child the district is actually educating—that is, each child in attendance—San Juan receives \$43.64, whereas Murray receives only \$32.23, more than \$11 less per child. Column 7 sets forth this situation. From this table we see that San Juan has in her school census 415 children who are not in attendance, but for each of whom she receives a school-census grant of \$24.25, whereas Murray has only 371 such children. The effect of this has been explained in earlier paragraphs and need not be dwelt upon here. Iron and Daggett have approximately the same valuation per child. Iron levies a tax of only four-tenths of a mill greater than that levied by Daggett, yet receives over \$1 more per child in attendance. As a final illustration, we may take Salt Lake and Duchesne. These two districts receive approximately the same amount per child in attendance despite the fact that Salt Lake has a



valuation per child more than twice that of Duchesne and levies a tax of only 5.6 mills, while Duchesne levies a tax of approximately 7.2 mills.

The last defect in Utah's system of State aid, which the present section will consider, is one which affects not only the State land interest and rental fund and the State district-school fund, but the State high-school fund, vocational aid, and the funds of teachers' retirement associations. In the case of each of these funds the law provides that if the income is not sufficient to meet all claims the fund shall be prorated among the districts or other claimants. Under such policies it is impossible for any district to know in advance the exact amount of aid upon which it can depend.

In the case of the State district school fund, as already noted, various school expenditures are paid from this fund prior to its apportionment. The balance is then prorated by dividing it by the total census of the year in which it is apportioned. Again, the law provides that districts shall be reimbursed 50 per cent of the money expended for teachers of part-time schools and classes, but if the State funds available are not sufficient to meet the claims "the State board of vocational education shall have the power to prorate the amount available among the districts" entitled to the same. The same policy is provided with respect to teachers' retirement associations. If the funds available are not sufficient to meet all claims, the law provides that the funds shall be prorated among the annuitants or claimants.

These policies of Utah are in marked contrast to those followed by States having sounder systems. Massachusetts, for example, provides that all school moneys paid by the State shall be paid as reimbursements for moneys previously provided and expended by the local school corporations, and these payments are to be made from a fund provided after the claims are reported. Under such a system all prorating is avoided. If Utah, for practical considerations, finds herself obliged to continue to prorate funds, a law should be passed authorizing and requiring the legislature of each year to levy a tax sufficient to meet all deficiencies of the previous year and thus offset the amounts of which the districts have been deprived through prorating. Similar legislation should be enacted requiring local communities to provide annually funds sufficient to reimburse annuitants and claimants who have suffered losses through the prorating of the funds provided for such associations.

Summarizing the findings of the present chapter we note that Utah's present method of apportioning State funds is defective in the following respects: (1) The school census, which is employed as the basis of apportioning the major part of State aid, results in



giving districts grants for hundreds of children who are not in school and puts a premium on nonattendance; (2) in apportioning funds differences in the financial ability and differences in the effort put forth by the districts are ignored; and (3) the prorating of funds. From this consideration of the defects in Utah's present method of apportioning State funds we may now turn to our consideration of the remedy which will be the subject of the immediately following section.

### THE REMEDY

#### EQUALIZING EDUCATIONAL OPPORTUNITIES AND SCHOOL BURDENS

It may be well to recall at this point some of the more important facts presented in previous sections, which leave no room for doubt that there is need for a marked modification of some of Utah's policies and practices. It has been shown that many children included in the school census are not in average daily attendance; that the sums expended annually per child in average daily attendance for current expenses—that is, for support and maintenance—vary all the way from \$105 in Grand to \$45 in Washington. The great inequalities in teachers' salaries, school year, and other important factors have been pointed out.

The facts presented show that not even an approach toward the equalizing of educational opportunities can be made so long as Utah depends for 64 per cent of her school revenues upon school districts which vary in assessed valuation from \$9,400 to \$1,409 and in true valuation from \$15,448 to \$2,653. We have seen that school burdens borne by some districts are comparatively light, while other districts stagger under the weight of heavy taxation, and yet are unable to produce funds to provide the bare necessities in educational facilities. Moreover, Utah's present system of school support inevitably creates and perpetuates these conditions.

#### MINIMUM PROGRAM AND ITS COST

Before we can undertake to offer an equal educational opportunity to every child in the State we must determine (1) what this opportunity shall include; (2) what it will cost; and (3) whether the funds which can be provided are sufficient to meet the cost. If not, the proposed program must be modified in such a manner as to make possible the putting of it into effect. The term minimum program will be used from this point onward to indicate the educational offering which is to be placed within the reach of every child. The most satisfactory way of determining the minimum program would be to set up certain standards as to the kind, quality, number, and accessibility of the educational facilities to be included



in this program. Shall our minimum program include high schools and kindergartens as well as elementary schools? Shall it include free textbooks and free lunches, free transportation; and if so, under what circumstances? To what extent shall it include all-year supervision, Americanization classes, part-time classes, and supervised playgrounds? How many teachers and other school officers shall be provided? What qualifications shall be demanded and what salaries shall be paid? The foregoing questions suggest the scope and difficulties involved in determining the minimum program. The cost of providing the minimum program will vary from district to district and from school to school. The aggregate cost of providing this minimum program for each district will be the cost which the State undertakes to guarantee and equalize.

A less scientific but far simpler and, therefore, more practical method of determining the minimum program to be guaranteed and equalized by the State is to set up a standard of expenditure per pupil in average daily attendance and to compute for each district in the State and then for the entire State the cost of such an expenditure.

The plan which the present report proposes is to leave to the districts the responsibility of providing the funds to meet the costs of new sites, new buildings, equipment, and debt service, and to place upon the State the responsibility of equalizing a minimum program of maintenance and support. In 1925, 78 per cent of the total annual expenditures were devoted to maintenance and support, and it is our belief that if the annual costs of maintenance and support were distributed equitably among the districts, they would, without unduly burdening themselves, be able to finance all other items of expenditure.

It has been decided to propose as the minimum program to be guaranteed to every child by the State and the cost of which is to be equalized by means of a State equalization fund, such a program as can be secured by expending for current expenses, i. e., for support and maintenance alone, \$70 per child in average daily attendance. This proposal seems justified by present conditions. In 1925 the average annual expenditure per child in average daily attendance (including both high-school pupils and elementary-school pupils) amounted to \$67.28, a sum not far from \$70. Moreover, one-fourth of the districts in the State expended over \$70 per child in amounts varying from \$73.77, expended by Park City, to \$105.41, expended by Grand. Two plans for financing this minimum program will now be offered.

*Plan No. 1. Complete State support*

The simplest and most equitable way for equalizing educational opportunities and school burdens would be for the State to pay all



the cost of the minimum program and to levy a State tax which would produce funds sufficient, when added to all other State funds, to pay all costs. This method has recently received serious consideration in a number of our States but, so far, has not been actually adopted in any State except Delaware, and there with limitations. Delaware, like Utah, after becoming convinced that the evils of the district system were incurable, abolished it and, again like Utah, adopted what was essentially a county unit system. Delaware's experiences with a county unit system further convinced her that the larger the unit the more equal would school revenues and educational opportunities be and the more completely would school burdens be equalized. Acting upon this conviction, Delaware decided to abolish counties as school districts and to make the State a single school district (with the exception of the city of Wilmington) and to draw all school revenues from State funds derived chiefly from a State income tax.

A similar policy is followed by the individual States composing Australia. In one or two States local communities are required to provide school buildings and funds for costs of maintaining and operating the school plant. In the remaining States all costs (support, maintenance, capital outlay, and debt service) are paid entirely from State funds. In France, Germany, and nearly all other continental European countries teachers' salaries are paid entirely from the State treasury. In some cases many other current costs are also paid by the State.

It is our belief that eventually some such plan as that of Delaware or of the Australian States will be adopted by many, perhaps by all Commonwealths in the United States, and that if Utah could see her way clear to adopt such a plan, it would be the wisest, simplest, most effective, and most equitable manner of providing schools.

*Plan No. 2. State equalization fund plan*

If Utah is not prepared to adopt a plan of complete State support or of having the State provide all funds except those required to meet the costs of capital outlay and debt service, she may, nevertheless, greatly improve her present situation by establishing, in addition to all existing State funds, a State equalization fund to be distributed in such a manner as to equalize district revenues and district school burdens.

Owing to the wide divergencies in the proportion of true valuation, which is, at present, assessed by the districts, it is impossible to make any comparisons between school districts as to ability to provide school revenues and as to their respective school burdens except upon the basis of equalized and true valuations and equalized or



true tax rates. In the outline which follows, and in subsequent paragraphs which will develop in more detail this plan, the terms "valuation" and "tax rate" wherever used will be employed to refer to true or equalized valuation and to rates levied upon such true valuations and which it has been convenient to call equalized or true tax rates. From this explanation of terms we may now turn to a summary of the major policies to be adopted in putting into effect the proposed State equalization fund plan.

#### OUTLINE OF STATE EQUALIZATION FUND PLAN

(1) No change is to be made in the present methods of providing and apportioning the State district school fund, land interest and rental fund, State high-school fund, vocational education funds, and any other existing State-aid funds.

(2) In order to share in the State equalization fund, every district must levy a tax of a rate equal at least to that which the wealthiest district will be obliged to levy to provide said district with funds which, together with the moneys received from the State district school fund and all other existing State funds, will be sufficient to pay the total cost of providing the minimum program in this district without aid from the equalization fund.

By the wealthiest district is meant the district having the greatest true valuation per school census child, and by minimum program is meant such program as can be purchased by an expenditure of \$70 per child in average daily attendance.

The rate which this wealthiest district levies becomes, in effect, a compulsory minimum tax rate to be levied by every district in the State.

The wealthiest district and all other districts will continue to receive all State grants they are now receiving. The wealthiest district would not, however, share in the State equalization fund nor would any other district share in the equalization fund which could meet the entire cost of the minimum program from the proceeds of its quotas of existing State funds plus the proceeds of the minimum tax.

(3) Any district which wishes may levy a rate greater than that required for participation in the State equalization fund, but in apportioning the equalization fund the State shall disregard moneys provided by districts through levying a tax rate higher than the minimum compulsory tax. In other words, no district which exceeds the minimum compulsory rate shall be penalized by the State through deductions from the quotas of the equalization fund to which such district is entitled, nor shall it be given additional aid from the equalization fund for this reason.



(4) Every district shall receive from the State equalization fund an amount representing the difference between the cost of providing said district's minimum program and the sum of the proceeds of the district minimum tax plus all grants to which the district would be entitled from the now existing funds.

#### HOW THE PLAN WORKS

The steps in putting into effect the proposed plan will consist in (1) determining the cost of the minimum program for each district; (2) determining the total amount of aid which each district will receive from all existing State funds; (3) determining the rate which the wealthiest district in the State will be obliged to levy upon its equalized or true valuation, in order to provide a sum equal to the difference between the cost of its minimum program and the moneys it will receive from the State land interest and rental fund, State district school fund, State high-school fund, and any other existing State grants; (4) computing for each district in the State the proceeds of a tax levied upon its equalized or true valuation of the same rate as that levied by the wealthiest district; (5) for each district in the State computing the sum of the proceeds of this compulsory minimum tax and the proceeds of grants to which the district would be entitled from all existing forms of State aid; (6) determining the amount which the district will be entitled to receive from the State equalization fund by subtracting from the total cost of the district's minimum program, as determined in step (1), the sum as computed in step (5); and (7) computing the total equalization fund to be provided by the State by adding the grants which each district is entitled to receive from the State equalization fund.

We may illustrate how the proposed plan will work by applying it to the wealthiest district and the poorest district. Grand, with a true valuation per school census child of \$15,448, is the wealthiest district in the State. Its average daily attendance in 1925 was reported as 470; the cost of the proposed minimum program, \$70 per pupil in average daily attendance, multiplied by 470, is \$32,900. This is the cost of the minimum program for the entire district.

The State high-school fund quota per pupil in attendance 20 weeks has steadily declined during the last two years, owing to the unprecedented increase in high-school attendance. In 1925 it amounted to \$5.08 per pupil. It will undoubtedly become less each year, but for purposes of illustrating the workings of our proposed plan here and in subsequent paragraphs and tables our computations will be based upon the assumption that the State high-school fund will provide \$5 per pupil in attendance 20 weeks. We shall employ as the number



of high-school pupils in attendance the estimated number of high-school pupils in attendance in 1926, as reported and employed in the apportionment of this fund, January 31, 1926.

The estimated number of high-school pupils reported for Grand was 84; \$5 multiplied by 84 gives us \$420 as the aid which Grand will receive from the State high-school fund. The total State aid apportioned to Grand in the year 1925-26 from the State land interest and rental fund and the State district school fund was \$13,245.16. Adding to this last amount the \$420 to be received from the State high-school fund we get \$13,665.16 as the total of the grants which Grand district will receive from existing State funds. Subtracting this amount from \$32,900, the total cost of providing the minimum program, we get as our remainder \$19,234.84. This last amount is the sum which this district, the wealthiest, must provide entirely by the proceeds of a district tax, for our plan requires that the wealthiest district shall receive no aid whatsoever from the State equalization fund.

It will require a tax of 2.323034 mills upon the true or equalized valuation of Grand to produce \$19,234.84.

The tax rate which the wealthiest district must levy is the rate which every other district must levy in order to be entitled to a share in the equalization fund. Let us now apply our plan to Garfield, the poorest district in the State, whose true valuation per school census child amounts to \$2,653. In applying our plan to Garfield and to all other districts we shall assume that the rate to be levied is 2.323 mills.

The procedure in the case of Garfield would be exactly the same as in the case of Grand were it not for the fact that it is necessary to compute the amount which Garfield will be entitled to receive from the equalization fund. The amount which Garfield will receive from the equalization fund will be computed as follows:

From the total cost of the minimum program subtract the sum of the proceeds of the compulsory tax of 2.323 mills levied on equalized or true valuation plus the sum of all moneys received from (1) the State land interest and rental fund, (2) the State district school fund, and (3) the State high-school fund. The remainder is the amount which Garfield will be entitled to receive from the State equalization fund. The amount each district will be entitled to receive from the State equalization fund may be determined by the following formula: District's equalization fund quota equals cost of district's minimum program minus proceeds of compulsory tax plus sum of grants from all now existing State school funds.

Table 44 presents the application of the plan to the four wealthiest and three poorest districts in the State and to Daggett, which presents a case of special interest.



TABLE 44.—*Proposed State equalization plan applied to seven districts*

District and rank in true valuation per child <sup>1</sup>		Average daily attendance 1925	Receipts from State				Proceeds of tax of 2.323 mills on true valuation	Sum of columns 7 and 8	Amount to be paid from State equalization fund <sup>7</sup>
Rank <sup>2</sup>	District		Total cost of minimum program <sup>3</sup>	Interest and rental fund, and State district fund, 1926 <sup>4</sup>	State high-school fund <sup>5</sup>	Total aid from existing State funds <sup>6</sup>			
1	2	3	4	5	6	7	8	9	10
1	Grand.....	470	\$32,900	\$13,245	\$420	\$13,665	\$19,234	\$32,900	Nothing.
2	Park City....	772	44,040	26,079	865	26,944	53,500	60,444	Nothing.
3	Nebo.....	4,562	319,340	138,759	5,050	143,809	181,010	324,820	Nothing.
4	Jordan.....	4,198	293,860	131,339	4,050	135,400	161,795	300,205	Nothing.
14	Daggett.....	68	4,760	3,093	Nothing	3,093	2,591	5,685	Nothing.
38	Washington..	1,832	128,240	53,899	1,225	55,124	15,750	70,874	\$57,365
39	Wayne.....	537	37,590	16,690	290	16,888	4,813	21,702	15,887
40	Garfield.....	1,428	99,060	36,424	795	37,219	9,571	46,790	53,169

<sup>1</sup> Valuation per school census child.<sup>2</sup> Rank in valuation among 40 districts.<sup>3</sup> On basis of \$70 per pupil in average daily attendance.<sup>4</sup> At \$24.17 per school census child.<sup>5</sup> Estimated at \$5 per pupil attending 20 weeks.<sup>6</sup> Sum of columns 5 and 6.<sup>7</sup> Column 4 minus column 9.<sup>8</sup> Cents omitted in these columns but included in computation of all totals. Therefore, in some cases, the total will not equal exactly the sum of the items given in the separate columns.

If the proposed plan be adopted only five districts in the State would receive no aid from the State equalization fund. Table 44 shows that four of these five are the four wealthiest districts in the State, whereas the fifth, Daggett, ranks fourteenth in true valuation per child. The reasons why these five districts are entitled to no aid from the equalization fund will be made clear if we compare the items in column 9 with items in column 4. Such a comparison will show that the combined proceeds of the compulsory district tax and grants, which these districts would receive from existing State funds, will equal the cost of the minimum program in the case of Grand, and will exceed this cost in Park City, Nebo, Jordan, and Daggett. This excess is due in the case of Park City, Nebo, and Jordan to their great wealth and the large proceeds which will be realized from the compulsory tax.

The explanation in Daggett must obviously be an entirely different one in view of the fact that nine districts, all of greater wealth than Daggett and lying between Daggett and Jordan, will receive aid from the equalization fund. The reason why Daggett, at the present time, would receive no aid from the equalization fund is to be found in the fact that out of a total school population of 128 only 68 pupils are in average daily attendance. Daggett now receives from existing State funds grants for almost twice as many children as she is actually educating. Owing to the large fund which Daggett receives for children not in attendance she will receive nothing from the equalization fund.

The school census method by which Utah distributes her present State aid funds penalizes districts which have a large percentage



of their school population in actual attendance and pays a handsome bonus for every child in the school population who does not attend school. The case of Daggett shows in a clear and forceful manner how the proposed plan will tend to counteract these evils. While leaving undisturbed the present State funds and the methods by which they are apportioned, the proposed equalization fund and the method of disbursing it will have the effect of transforming all State aid into an equalization fund.

Table 45 shows how each district in the State will be affected by the proposed equalization plan, presenting as it does the same data for each district in the State that Table 44 has presented for eight districts.

TABLE 45.—*Proposed State equalization plan applied to all districts*

District	Average daily attendance, 1925	Receipts from State				Proceeds of tax of 2.323 mills on true valuation	Sum of columns 6 and 7	Amount to be paid from State equalization fund <sup>4</sup>
		Total cost of minimum program	Interest and rental fund and State district fund, 1926 <sup>2</sup>	State high-school fund <sup>3</sup>	Total aid from existing State funds <sup>3</sup>			
1	2	3	4	5	6	7	8	9
Alpine	4,005	\$280,350	\$119,351	\$4,035	\$123,385	\$92,971	\$216,357	\$63,992
Deaver	1,285	89,950	35,771	1,340	37,111	28,897	66,009	23,940
Box Elder	5,248	367,390	144,850	5,315	150,165	171,458	321,624	45,735
CACHE	4,549	318,430	132,040	4,675	136,715	138,670	275,386	43,013
Carbon	4,540	317,800	128,753	2,530	131,283	145,721	277,005	40,794
Daggett	68	4,760	3,093		3,093	2,591	5,685	
Davis	3,137	219,590	95,278	2,875	98,153	81,172	179,325	40,264
Duchesne	2,047	143,290	64,558	1,145	65,703	19,570	85,273	58,016
Emery	2,020	141,400	53,584	1,950	55,534	25,677	81,212	60,187
Garfield	1,428	99,960	36,424	795	37,219	9,571	46,790	53,169
Grand	470	32,900	13,245	420	13,665	19,234	32,900	
Granite	5,817	407,190	184,078	4,585	188,663	129,928	318,592	88,597
Iron	1,732	121,240	49,621	1,455	51,076	43,822	94,898	26,341
Jordan	4,198	293,860	131,339	4,070	135,409	164,795	300,205	
Juab	1,184	82,880	30,599	1,565	32,164	25,312	57,476	25,403
Kane	525	36,750	16,411	555	16,966	9,019	25,986	10,763
Millard	2,961	207,270	85,054	2,965	88,049	85,312	173,361	33,908
Morgan	656	45,920	18,731	960	19,691	20,398	40,090	5,829
Nebo	4,562	319,340	138,759	5,050	143,809	181,010	324,820	
North Sanpete	2,218	155,260	66,950	2,125	69,075	37,528	106,603	48,656
North Summit	669	46,830	18,780	830	19,610	24,361	43,971	2,858
Park City	772	54,040	26,079	865	26,944	33,500	60,444	
Piute	524	36,680	17,329	440	17,769	9,146	26,916	9,763
Rich	500	35,000	15,154	575	15,729	11,790	27,520	7,479
San Juan	519	36,330	22,381	320	22,701	9,003	31,705	4,624
Sevier	3,300	231,000	90,710	3,565	94,275	44,420	138,704	92,295
South Sanpete	2,267	158,690	62,455	2,680	65,135	34,253	99,418	59,271
South Summit	456	31,920	12,930	570	13,500	15,257	28,758	3,161
Tintic	1,167	81,690	34,466	1,255	35,721	30,163	65,885	15,804
Tooele	1,852	129,640	55,325	1,885	57,210	57,283	114,493	15,146
Uintah	2,214	154,980	72,558	1,535	74,083	31,661	105,755	49,224
Wasatch	1,475	103,250	41,185	1,620	42,805	23,548	66,354	36,895
Washington	1,832	128,240	53,899	1,225	55,124	15,750	70,874	57,365
Wayne	537	37,590	16,628	260	16,888	4,813	21,702	15,887
Weber	2,686	188,020	87,978	2,265	90,243	79,514	169,758	18,261
Salt Lake City	26,502	1,855,140	783,132	21,700	804,832	618,977	1,423,810	431,329
Ogden	8,096	566,720	252,697	9,750	262,447	195,763	458,210	108,509
Provo	3,231	226,170	94,649	2,890	97,529	38,308	135,838	90,331
Logan	2,472	173,040	73,525	3,655	77,180	26,959	104,139	68,900
Murray	1,127	78,890	30,206	915	37,121	16,095	53,217	25,672
Total <sup>4</sup>	114,848	8,039,360	3,416,574	107,230	3,523,804	2,753,284	6,277,088	1,781,427

<sup>1</sup> On basis of \$70 per pupil in average daily attendance.

<sup>2</sup> At \$24.17 per school-census child.

<sup>3</sup> Estimated at \$5 per pupil attending 20 weeks.

<sup>4</sup> Sum of columns 4 and 5.

<sup>5</sup> Column 3 minus column 8.

<sup>6</sup> Cents omitted in the columns but included in computation of all totals. Therefore, in some cases the total will not equal exactly the sum of the items given in the separate columns.



## HOW THE PROPOSED PLAN WILL EQUALIZE SCHOOL EXPENDITURES

Our proposed plan provides an annual expenditure of \$70 for support and maintenance per child in average daily attendance. In 1925, out of Utah's 40 districts, 30 spent less than \$70. Twenty-one of the 30 spent less than \$65; 16 of the 30 spent less than \$60; 7 spent less than \$55; and 4 spent less than \$50. The proposed plan guarantees that every district in the State will have at least \$70 per child to spend and provides that all districts shall levy a tax of the same rate. This plan will not prevent any district from levying a tax in excess of the compulsory minimum tax and spending more than \$70 if it choose to do so. Table 46 shows how the expenditure provided by the proposed plan compares with the actual expenditure in 1925 per pupil in average daily attendance.

TABLE 46.—District pupil expenditure in 1925 compared with expenditure of \$70 per pupil provided by the proposed minimum program

Districts	Expenditure per pupil in average daily attendance	
	1925	Comparison of expenditures of \$70 with 1925 expenditure
		Increase      Decrease
Alpine.....	\$55.66	\$14.44
Beaver.....	60.67	9.33
Box Elder.....	55.96	14.04
Cache.....	58.39	11.61
Carbon.....	65.70	4.30
Daggett.....	74.53	
Davis.....	58.81	11.19
Duchesne.....	51.39	18.61
Emery.....	50.42	19.58
Garfield.....	46.78	23.22
Grand.....	105.41	35.41
Granite.....	67.94	2.06
Iron.....	66.16	3.84
Jordan.....	69.19	.81
Juab.....	64.69	5.31
Kane.....	59.14	10.86
Millard.....	67.25	2.75
Morgan.....	84.56	14.56
Nebo.....	62.89	7.11
North Sanpete.....	59.57	10.43
North Summit.....	101.51	31.51
Park City.....	73.77	3.77
Plute.....	67.42	2.58
Rich.....	68.09	1.31
San Juan.....	57.51	12.49
Sevier.....	56.63	13.37
South Sanpete.....	50.35	19.65
South Summit.....	102.73	32.73
Tintic.....	96.47	26.47
Tooele.....	87.07	17.07
Utah.....	63.39	6.61
Wasatch.....	67.58	2.42
Washington.....	45.51	24.49
Wayne.....	46.82	23.18
Weber.....	74.37	4.37
Salt Lake City.....	76.90	6.90
Ogden.....	66.66	3.34
Provo.....	49.23	20.77
Logan.....	56.64	13.36
Murray.....	64.15	5.85

## HOW THE PROPOSED PLAN WILL EQUALIZE SCHOOL-TAX RATES

Tax rates levied on assessed valuation for maintenance and support in 1925 varied from 12 mills, levied by Garfield, to 4.4 mills, levied by Park City, but as has been repeatedly stated, it is impossible to compare tax rates in Utah until they have been equalized. To do this it is necessary to determine what the tax rate actually levied in 1925 would have been if levied upon equalized or true valuation. Having done this we discover that the equalized tax rates varied from 7.36 mills, levied by Tintic, to 2.3165 mills, levied by Cache. In attempting to compare the burden which will be placed upon each school district if it were to levy an equalized or true tax of 2.323 mills on its true valuation with its present tax rate, we may proceed by either one of two different methods. We may determine what the proposed true tax rate of 2.323 mills would be if levied upon the present assessed valuation and then compare this rate with the tax actually levied in 1925, or we may reduce the tax actually levied in 1925 to a true or equalized rate and compare this with the proposed rate of 2.323 mills.

In Table 47 these two methods of comparison have been applied to the tax rate of each district in the State. This table shows that were the proposed plan adopted the district tax rate necessary to provide a program costing \$70 per pupil in average daily attendance would be lower than the district tax rate levied in 1925 in every district except one, namely, Cache. In the case of Cache the increase would amount to approximately only two-hundredths of one mill (0.015936) if levied on assessed valuation, and to approximately seven-thousandths of a mill (0.006534) if levied on true valuation.

Of particular interest is the decrease in district tax rates and consequently in school burdens which would take place in the poorer districts. If rates on assessed valuation be employed, the approximate decrease in rates would be 8 mills in Garfield, 6 mills in Emery, 5 mills in Wayne, 3 mills in Washington. Marked examples of decreases in equalized or true tax rates are 5 mills in Tintic, 4 mills in Murray, Garfield, and Emery, 3 mills in North Summit, Sevier, and Ogden.



TABLE 47.—Effects on district tax rates of proposed minimum program and equalization fund

Districts	Rate <sup>1</sup> on assessed valuation		Rate <sup>1</sup> on equalized or true valuation		
	1925 tax rate levied on assessed valuation	Proposed tax rate if levied on assessed <sup>2</sup> valuation	Decrease or increase <sup>3</sup> of proposed rate over 1925 rate	1925 rate equalized	Decrease or increase <sup>3</sup> of proposed rate of 2.323 mills
Alpine.....	8.96	5.807583	3.152415	3.584	1.260966
Beaver.....	8.8	4.467373	4.332627	4.576	2.252966
Box Elder.....	5.403	4.554969	.848031	2.75553	.432496
Cache.....	5.65	5.665836	-.015836	2.3165	+.006534
Carbon.....	7.0	5.402404	1.597596	3.01	.686966
Daggett.....	7.5	4.223398	3.276302	4.125	1.801966
Davis.....	6.25	4.383083	1.866917	3.3125	.980466
Duchesne.....	7.6	3.749829	3.853171	4.712	2.388966
Emery.....	10.0	3.687356	6.312644	6.3	3.970966
Garfield.....	12.0	4.223698	7.776302	6.6	4.276966
Grand.....	8.2	4.223698	3.976302	4.51	2.186966
Granite.....	6.13	3.366716	2.763284	4.2297	1.909666
Iron.....	7.5	5.050074	2.449926	3.45	1.126966
Jordan.....	4.55	3.366716	1.183284	3.1395	.810466
Juab.....	5.5	3.629741	1.870259	3.52	1.190966
Kane.....	9.0	4.223698	4.776302	4.05	2.620966
Millard.....	6.4	5.279623	1.120377	2.816	.492966
Morgan.....	7.5	3.808252	3.691748	4.575	2.251966
Nebo.....	7.15	5.807585	1.342415	2.89	.536966
North Sanpete.....	9.6	4.942626	4.657374	4.512	2.188966
North Summit.....	9.1	3.808252	5.291748	5.55	3.227966
Park City.....	4.4	3.808252	5.991748	2.684	.360966
Plute.....	8.2	4.223698	3.976302	4.51	2.186966
Rich.....	6.5	4.223698	2.276302	3.575	1.251966
San Juan.....	8.0	4.223698	3.776302	4.4	2.076966
Sevier.....	10.0	4.148275	5.851725	5.6	3.276966
South Sanpete.....	7.5	4.942626	2.557374	3.525	1.201966
South Summit.....	10.86	3.808252	7.051748	6.6246	4.301566
Tintic.....	11.5	3.629741	7.870259	7.39	5.036966
Tooele.....	8.37	3.037379	2.272621	4.0275	1.704466
Utah.....	11.0	5.531033	5.468967	4.62	2.296966
Wasatch.....	6.5	3.182238	3.317762	4.745	2.121966
Washington.....	7.8	5.050074	2.749926	3.588	1.264966
Wayne.....	9.3	4.223698	5.076302	5.115	2.791966
Weber.....	7.46	4.148275	3.311725	4.1776	1.854566
Salt Lake City.....	7.334	3.366716	3.967284	5.09046	2.737426
Ogden.....	9.84	4.223698	5.616302	5.412	3.088966
Provo.....	7.42856	5.050074	2.378496	3.417	1.003966
Logan.....	11.38	5.956497	5.23503	4.4382	2.115166
Murray.....	9.89	3.366716	6.523284	6.8241	4.501066

<sup>1</sup> For support and maintenance only.<sup>2</sup> Cache is the only district in the State in which the rate would be increased.<sup>3</sup> The rate in this column represents the rate which must be levied on assessed valuation to produce same revenue as a tax of 2.323 mills on true valuation would produce.<sup>4</sup> Provo reported only the total school tax. The rate here used is computed on the assumption that support and maintenance constituted 78 per cent of the total cost, this being the State average.

## EFFECTS OF PROPOSED PLAN UPON DIVISION OF SCHOOL BURDENS

The analysis of receipts already presented (see Tables 35 and 38) showed that, in 1925, 64.5 per cent of the revenue provided for Utah's elementary and high schools was furnished by the districts, 35 per cent by the State, and 0.5 per cent by Federal funds. Table 48 shows that under the proposed equalization-fund plan the division of school burdens would be reversed; 34.2 per cent would be furnished by the districts and 65.8 per cent by the State, as follows: 42.4 per cent from the State land interest and rental fund and State district school fund, 1.3 per cent from the State high-school fund, and 22.1

per cent from the State equalization fund. This computation and analysis ignore the aid from Federal funds, which we have seen is less than one-half of 1 per cent, and therefore may be treated as of negligible importance.

Owing to the fact that all of the five districts which will receive no aid from the State equalization fund will, with the exception of Grand, derive from the existing State-aid funds and the proceeds of the minimum tax a sum in excess of the cost of their respective minimum programs, it follows that the total revenue derived from all

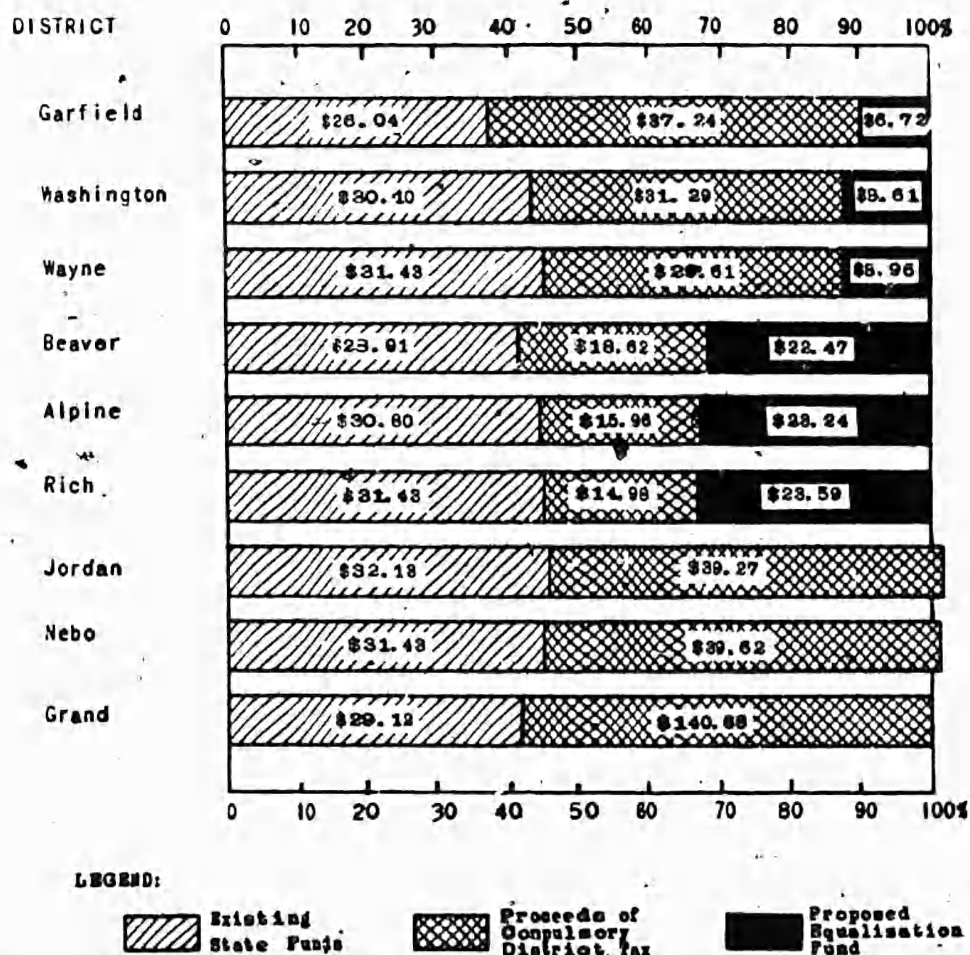


FIG. 39.—Effects of equalization fund upon the division of school burden in nine selected districts. Each bar represents an analysis by amount and by per cent of an expenditure of \$70 per child in average daily attendance. (Based on Table 44)

sources will exceed slightly the total cost of the minimum program. The cost of the proposed minimum program was found to be \$8,039,360. The total receipts which will be provided under the proposed plan amount to \$8,058,515, an excess of \$19,155. Table 48 shows the amount and per cent of the total receipts which will be provided by each major source. Table 49 presents a similar analysis for each district.



TABLE 48.—Percentage analysis of receipts under proposed State minimum program and equalization fund plan

(Based on Table 45)

Fund	Amount	Per cent of total receipts
District tax.....	\$2,753,284	34.2
Land interest and rental fund and State district school fund.....	3,416,574	42.4
State high-school fund.....	107,230	1.3
Equalization fund.....	1,781,427	22.1
Total.....	8,058,515	100.0

Figure 39 shows graphically the amount and the per cent of the minimum \$70 program which will be financed in each of nine districts from existing State funds, from the compulsory district tax, and from the proposed equalization fund.

TABLE 49.—Effect of proposed equalization plan upon division of school burdens (percentage analysis of school receipts)

District	District compulsory tax	State funds			Total State and district (sum of columns 2 and 5)
		Existing State funds <sup>1</sup>	Proposed equalization fund	Total State (sum of columns 3 and 4)	
1	2	3	4	5	6
	Per cent	Per cent	Per cent	Per cent	Per cent
Alpine.....	33.2	44.0	22.8	66.8	100.0
Beaver.....	32.1	41.3	26.6	67.9	100.0
Box Elder.....	46.7	40.8	12.5	53.2	100.0
Cache.....	43.5	43.0	13.5	56.5	100.0
Carbon.....	45.9	41.3	12.8	54.1	100.0
Daggett <sup>2</sup> .....	54.4	64.9	.0	64.9	119.3
Davis.....	37.0	44.7	18.3	63.0	100.0
Duchesne.....	13.7	45.8	40.5	86.3	100.0
Emery.....	18.1	39.3	42.6	81.9	100.0
Garfield.....	9.6	37.2	53.2	90.4	100.0
Grand.....	58.4	41.6	.0	41.6	100.0
Granite.....	31.9	46.3	21.8	68.1	100.0
Iron.....	30.2	42.1	21.7	63.8	100.0
Jordan <sup>2</sup> .....	56.1	45.9	.0	45.9	102.0
Juab.....	30.5	38.8	30.7	69.5	100.0
Kane.....	24.5	46.2	29.3	75.5	100.0
Millard.....	41.2	42.4	16.4	58.8	100.0
Morgan.....	44.4	42.9	12.7	55.6	100.0
Nebo <sup>2</sup> .....	56.6	44.9	.0	44.9	101.5
North Sanpete.....	24.2	44.5	31.3	75.8	100.0
North Summit.....	52.0	41.9	6.1	48.0	100.0
Park City <sup>2</sup> .....	61.9	40.6	.0	40.6	111.7
Piute.....	25.0	48.4	26.6	75.0	100.0
Rich.....	33.7	41.9	21.4	66.3	100.0
San Juan.....	24.8	62.5	12.7	75.2	100.0
Sevier.....	19.2	40.8	40.0	80.8	100.0
South Sanpete.....	21.6	41.0	37.4	78.4	100.0
South Summit.....	47.8	42.3	9.9	52.2	100.0
Tintic.....	36.9	43.7	19.4	63.1	100.0
Tooele.....	44.2	44.1	11.7	55.8	100.0
Utah.....	20.4	47.8	31.8	79.6	100.0
Wasatch.....	22.8	41.5	35.7	77.2	100.0
Washington.....	12.3	43.0	44.7	87.7	100.0
Wayne.....	12.8	44.9	42.3	87.2	100.0
Weber.....	42.3	48.0	9.7	57.7	100.0
Salt Lake.....	33.4	43.4	23.2	66.6	100.0
Ogden.....	34.5	46.3	19.2	65.5	100.0
Provo.....	16.9	43.2	39.9	83.1	100.0
Logan.....	15.6	44.6	39.8	84.4	100.0
Murray.....	20.4	47.1	32.5	79.6	100.0

<sup>1</sup> State land interest and rental fund; State school-district fund; State high-school fund.

<sup>2</sup> In the case of these districts the proceeds of the compulsory tax and existing State funds will exceed the costs of the minimum program. Hence these districts will receive no grants from the equalization fund and the total receipts exceed 100 per cent of the cost of the proposed minimum program.

## PLAN MUST PROVIDE FOR INCREASING SCHOOL STANDARDS

In adopting the proposed plan care must be taken not to set up a standard of expenditure which shall become fixed and continue unchanging from year to year. Seventy dollars per pupil in average daily attendance, which at the present time probably represents as high an average expenditure as could be reasonably expected or demanded, may in a few years be greater or less than the expenditure which would satisfy the school needs of Utah. Our plan must definitely provide that the minimum program to be equalized by the State shall be determined annually upon the basis of the average expenditure during the preceding year per pupil in average daily attendance.

## DESIRABLE MODIFICATIONS OF THE PROPOSED PLAN

The proposed plan leaves certain things to be desired. It has been offered in its present form because it is one that can be readily understood by the citizens of Utah, because it is sound in principle, and because it lies entirely within the possibilities of the State. In 1925 Utah's total expenditures for current costs amounted to \$7,611,690 (see Table 5); our proposed plan calls for an expenditure of \$8,039,360, only \$427,670 more than Utah spent in 1925. The chief difference, then, between the system offered by our proposed plan and Utah's present system of school support is not a large increase in the school burden, but rather the equalizing of the school revenues provided and the equalizing of the school burden. This equalizing is to be secured by greatly reducing the burden upon the individual districts and using all the wealth of the State for all the children of the State. The all-important thing at the present time is not so much an increase in school revenue as it is the adoption of a plan by which the distribution of revenue and school burdens shall be equalized. Utah's present methods of providing and distributing school moneys violate at nearly every point not only the principles of sound public finance but of democracy itself.

We may now mention certain modifications which would improve the proposed plan and which should therefore receive serious consideration.

(1) In computing the cost of the minimum program, the State average expenditure per high-school pupil and per elementary school pupil should be computed separately.

(2) Following the California system, when the maximum expenditure for a district to be equalized by the State does not provide a minimum amount per teacher employed the fund for this district should be calculated on a per teacher basis.

It should be noted that if Utah is not prepared to equalize a program of \$70 per pupil in average daily attendance, she may adopt



a program representing a lower cost, e. g., \$60 per child. Again, if Utah is unwilling to have the State assume as large a proportion of the school burden, in other words, furnish a State equalization fund of \$1,781,000, she may raise the rate of the tax which must be levied by each district in order to share in the equalization fund. This increase of the compulsory local rate would, of course, increase the funds to be provided by the districts and decrease the amount of the State equalization fund.

But in so far as this minimum compulsory tax rate is increased above the rate which the wealthiest district must levy in order to finance its minimum program without aid from the State equalization fund, just so far will the number of districts entitled to aid from the equalization fund be decreased and just so far will equalization be reduced and the aims of the present plan be defeated. Maryland requires each district, in order to share in the State equalization fund, to levy a tax as high as the average district tax of the preceding year; but educational leaders in Maryland have long since realized the difficulties of this policy and have repeatedly urged that the district rate be lowered and the State equalization fund accordingly increased.

*Plan No. 3. Equalization by means of existing funds*

It has been shown that Plan No. 2, presented on page 480, will offset the inequalities created by Utah's present system of State aid. Experience has shown that it is frequently much easier to get additional funds on a new basis if existing funds are left undisturbed. If the citizens of Utah are not prepared to accept either one of the two plans already presented, then steps should be taken to provide for a new method of apportioning existing funds.

Plan No. 3 proposes that one-half the combined income of the land interest and rental fund and the State district school fund shall be apportioned among the districts on the basis of average daily attendance, and that the remaining half shall be set aside as an equalization fund to be apportioned among all districts which levy a tax of a minimum rate and are unable from the proceeds of this tax and from all other State funds to provide for each child in average daily attendance an amount equal to the State average expenditure per pupil in average daily attendance during the preceding year. This proposal is only offered as a last resort. It is not necessary to present here the details for working out this plan, as they can easily be developed on the basis of the principles already set forth in connection with Plan No. 2.

It is only by the provision of a State equalization fund that Utah can make any progress toward evening out of the inequalities in her



school system. It is only by the provision of a State equalization fund that Utah can put herself in the first rank of those States which are endeavoring to finance their schools with some regard for sound and scientific principles of school support. We may well close this portion of our report with a list of the 24 States which now provide an equalization fund. They are as follows: Colorado, Connecticut, Indiana, Kansas, Kentucky, Maine, Maryland, Minnesota, Mississippi, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, West Virginia.

#### NEW SOURCES OF STATE SCHOOL FUNDS

The preceding section has proposed that in addition to the State funds that Utah is now providing, she shall establish an equalization fund amounting to \$1,781,427. Where shall the money come from? From a general property tax? From a State income tax? From taxes on corporations? From a State severance tax? From increased rates in taxes levied on mines?

These questions have been so fully and ably discussed in a number of reports prepared for the citizens of Utah during the last few years that it is unnecessary to discuss them at length here. The report of the tax commission appointed by the Utah Legislature of 1921, which, with the assistance of Prof. Charles J. Bullock, of Harvard University, one of the outstanding authorities in taxation, made an exhaustive study of the tax laws of Utah and outlined a program for revising Utah's present system. A brief but exceedingly able treatment of the entire subject will also be found in an address delivered by Frances Kirkham at the 1924 annual convention of the State School Boards Association and printed, pages 83 to 91, in the Biennial Report of the Superintendent of Public Instruction for 1924. It is believed that the greatest service which the present report can render to the citizens of Utah is not to attempt to duplicate the very able treatments which have already been prepared for them but rather to call attention to the extent to which certain newer types of taxation are at present being employed in other States.

#### FAILURE OF THE GENERAL PROPERTY TAX

In 1925, out of every \$100 provided for the elementary schools and high schools of Utah, approximately \$88 came from the proceeds of general property taxes. On this \$88, \$57 came from general property taxes levied by the districts and \$31 came from State general property taxes levied to provide the State district-school fund and the State high-school fund.



Considerable space in the preceding sections has been devoted to an account of the evils attending the general property tax in Utah. It has been pointed out that at the present time property is assessed all the way from 39 per cent to 75 per cent of its true value despite the fact that the law requires that it shall be assessed at 100 per cent. The experience of Utah is in complete harmony with that of nearly every other State in the Union.

Wherever we find a State general-property tax, there we find the constituent political corporations generally yielding to the temptation to lower their valuations. The more the valuation is lowered the smaller will be the amount paid into the State treasury. It is evident that the district which assesses property at 39 per cent will, when State taxes are collected, pay the State only 39 cents on the dollar, whereas districts which assess property at 75 per cent will pay 75 cents on the dollar. Yet every district demands and receives when State school funds are apportioned 100 cents on the dollar. The district which assesses its property at a high per cent of its true valuation is penalized twice—first, when it pays the State taxes; second, when certain State funds, e. g., the State high-school fund, are pro rated. Moreover, the district assessing property at a low per cent of its true valuation need suffer no loss with regard to the sums it desires to raise locally, for it can always increase its local rate sufficient to provide the necessary local funds. In the past court decisions in Utah have upheld districts levying a rate exceeding the legal maximum on the ground that districts are required to provide school facilities for their children and that this obligation is supreme.

The general-property tax as a source of school revenue stands condemned to-day not only by every leading authority in the field of taxation but by numerous State tax commissions consisting of men eminent in business and public affairs. Prof. Edwin R. A. Seligman, of Columbia University, in his work, *Essays in Taxation*, page 62, writes:

Practically, the general property tax, as actually administered to-day, is, beyond all doubt, the worst tax known to the civilized world. \* \* \* It puts a premium on dishonesty and debauches the public conscience; it reduces deception to a system and makes a science of knavery; it presses hardest on those least able to pay; it imposes double taxation on one man and grants immunity to the next. In short, the general property tax is so flagrantly inequitable that its retention can be explained only through ignorance or inertia.

The special tax commission of the State of Georgia, in 1919, stated in its report to the Governor that—

The commission, after its investigation, believes that the system now in use is a failure (i. e., the general property tax), and concludes by recommending an amendment to the Constitution that would permit the levying of "taxes



on incomes, inheritances, privileges, and occupations, which classes of taxes may be graduated, and when levied may contain provisions for reasonable exemptions."

The Georgia commission adduces the following reasons in support of the proposed amendment:

We have reached the above conclusion because we find that the provision of our law requiring property of every kind and character to be taxed at the same rate is condemned by (1) practically all students of the science of taxation; (2) practically all of the heads of Federal and State tax departments; (3) practically all of the more than 100 special-tax commissions; (4) the United States Supreme Court; (5) the National Tax Association; (6) the experience of Europe, England, and our own States, all of which have tried it and about half of which have so modified it as to adapt it to modern conditions.

The tax commission of Ohio, after 15 months' investigation of the general property tax, summarized its findings in the following statement of facts: (1) It punishes the honest; (2) it rewards the dishonest; (3) it results frequently in double taxation; (4) it is unjust to the owners of all other property; (5) it lowers the standard of integrity.

#### NEWER TYPES OF STATE TAXES EMPLOYED TO PROVIDE SCHOOL REVENUES

It is probably true that the majority of our citizens have little knowledge of the extent to which many States are employing corporation taxes, income taxes, and other newer types of taxes, instead of, or in addition to, general property taxes as a means of producing school revenue. Table 50 shows certain States which employ for school purposes types of taxation other than a general property tax. It should be borne in mind that the number of States employing these taxes would be considerably increased were it not for the fact that Table 50 does not include any tax unless this tax is levied specifically, in part or in whole, to provide school revenues. Income taxes are levied in a number of States, notably Wisconsin, which are not included in Table 50, because the tax is not levied in any sense as a school tax.

#### STATE INCOME TAXES FOR SCHOOLS

The movement toward depending upon income taxes as sources of State revenue which appeared to be well under way was given a distinct set back by the creation of the Federal income tax. Nevertheless, the fact remains that a large number of our States are levying such taxes and are finding them a far more equitable means of providing public moneys than the general property tax. Delaware, Massachusetts, North Carolina, and Arkansas are States where the graduated personal income tax is of comparatively recent origin.



In Delaware, the entire proceeds of the income tax go to schools. In Arkansas all the proceeds are credited to the State common-school fund, except \$20,000 which the law provides shall be annually retained by the State for the purpose of meeting the costs of administering the tax.

TABLE 50.—State corporation, income, inheritance, and occupation taxes levied specifically for schools<sup>1</sup>

Type of tax	State	Character of tax
<b>I. Corporation tax:</b>		
Bank.....	New Hampshire..	A bank tax on nonresidents at local rate; rates vary widely.
Do.....	Maine.....	Proceeds of one-half of taxes on savings bank franchises; one-half of proceeds of taxes on deposits of trust and bonding companies.
Franchises.....	Kentucky.....	1.8 mills.
Railroad.....	New Jersey.....	Tax on first-class railroad property at average of local rates.
Do.....	Virginia.....	1 mill tax (10 cents on every \$100) on assessed valuation of intangible property and on rolling stock.
All corporations.....	California.....	Rates and bases vary. <sup>2</sup>
Public-service corporations, banks, insurance companies.	Delaware.....	Entire proceeds go to schools.
Public-service corporations, insurance companies	Wisconsin.....	Part of proceeds devoted to schools.
<b>II. Income tax:</b>		
.....	Massachusetts.....	
.....	North Carolina.....	
.....	Arkansas.....	All proceeds except \$20,000 go to schools.
.....	Delaware.....	Entire proceeds go to schools.
<b>III. Inheritance tax<sup>3</sup>:</b>		
.....	California.....	Graded scale dependent upon the value of the inheritance and degree of relationship of heirs.
.....	Virginia.....	
.....	Louisiana.....	
.....	Michigan.....	
.....	Kentucky.....	
<b>IV. Occupation tax:</b>		
.....	Texas.....	One-fourth of proceeds of all such taxes.
<b>V. Severance tax:</b>		
.....	Louisiana.....	On oil and gas 3 per cent, and on other natural resources 2 per cent of the gross market value of the total production. <sup>4</sup>
.....	Arkansas.....	On gross market value of total production, 2½ per cent unless special rates are provided. <sup>5</sup>

<sup>1</sup> Utah taxes on mines and mine license fees do not appear in the present table, because not levied specifically for schools.

<sup>2</sup> Not levied as a school tax, but provides over 60 per cent of State general fund from which State aid is paid and, therefore, through use, becomes virtually a tax for schools.

<sup>3</sup> Certain States devote proceeds of inheritance taxes to permanent school funds. Such States are not named here, as this portion of the present account is concerned only with taxes levied for current revenue.

<sup>4</sup> Two-thirds of the profits go to the State universities and other State institutions; one-third is returned to the school districts (parishes) wherein collected and must be used for schools.

<sup>5</sup> Two-thirds of proceeds are credited to State common school fund, one-third to counties wherein collected and divided equally between schools and roads.

In Massachusetts all the proceeds of the State income tax are paid into the State treasury and the schools have first claim upon the fund thus established, but after meeting the claims of individual school districts (towns and cities) the balance amounting to about three-fourths of the fund is returned to the communities from which collected. In the case of Massachusetts we have an interesting example. In this instance the State has full right to the entire proceeds of the income tax, if the entire proceeds should be needed to meet the needs of the State, but when the entire proceeds are not needed for projects to be financed by the State the balance is returned to the local communities.



North Carolina in 1918 adopted a constitutional amendment providing for graduated personal income tax of rates varying from 1 to 3 per cent on personal incomes. The proceeds of this tax, together with those of certain other State funds, were sufficient to enable the State to discontinue the State general-property school tax provided for schools.

In 1923 North Carolina derived approximately \$7,750,000 from taxes on income, franchises, inheritances, and licenses together with interest on bank balances. Of this total, approximately 69 per cent was derived from income taxes, 16 per cent from taxes on franchises, 7 per cent from inheritance taxes, and 7 per cent from licenses. Out of the above total \$1,400,000 was set aside as a public-school fund of which \$800,000 was used as a State equalization fund.

The graduated personal income tax is universally regarded by all experts in public finance as one of the fairest and one of the soundest taxes in existence. Under it, as commonly administered to-day, individuals of small incomes are totally exempt. Beginning with a low rate of taxation, on the smallest incomes subject to the tax, the rate is gradually increased as the income increases.

In contrast to the general property tax the income tax is based upon ability to pay. The general property tax fails utterly to take this factor into consideration.

#### THE SEVERANCE TAX

The severance tax is a tax levied upon all natural products severed from the soil except agricultural. It is based upon a recognition of the fact that when minerals, timber, clay, sand, and other natural products are removed, the State is permanently impoverished, and that those who profit by this should pay tribute.

Louisiana is a pioneer in this method of taxation. Her original law, approved June 30, 1920, provided for a 2 per cent tax on the gross value of timber, minerals, oil, gas, salt, coal, sulphur, ores, marble, stone, gravel, sand, shells, and all other natural deposits. Subsequent legislation, enacted upon the recommendations of the Louisiana commission of assessment and taxation, has classified these products and provided for different rates of taxation, as follows: On oil and gas 3 per cent, and on all other natural resources 2 per cent of the gross market value of the total annual production. In Louisiana two-thirds of the proceeds of the tax go to the State university and other State institutions. One-third is returned to the school districts (i. e., parishes) wherein collected and must be used for schools.

Arkansas, in accordance with a recommendation embodied in a survey of public education in the State, made under the direction of



the United States Bureau of Education, provided for a State graduated income tax and a State severance tax. The Arkansas severance tax law provides for a tax of  $2\frac{1}{2}$  per cent on the gross market value of the total annual production, except in the case of a few natural products where special rates are provided. Two-thirds of the proceeds are credited to the State common-school fund and one-third is returned to the counties wherein collected and must be divided equally between schools and roads.

The severance tax, like the State income tax, is growing steadily in popular esteem, as may be seen from the following extract taken from the annual report of the Illinois tax commission in 1922:

It is absolutely essential that the State of Illinois, by amendment of its constitution and the passage of appropriate legislation, provide by more modern methods for the realization of a substantial part of the revenues required for public purposes by the State and its political subdivisions, so that in some measure the vast bulk of property invisible to the assessing authorities physically, but productive of very large income values, may be required to contribute its fair proportion to the public burden.

This can be accomplished in part by the use of production or severance taxes upon coal, oil, and mineral deposits in the State which upon removal are forever lost as an element of value subject to taxation and by license and business taxes upon the activities of the people engaged in trade and callings of such productive character as to be able to bear the same without impairing the maintenance and operation of essential industry.

We recommend favorable consideration of laws proposed to levy a production of severance tax on coal, oil, and minerals, and such additional taxes on occupations and privileges as will contribute measurably to the public revenues without being restrictive of commercial or industrial developments.

#### INHERITANCE TAXES

At least five States, California, Michigan, Kentucky, Louisiana, and Virginia, devote to schools moneys derived from taxes on inheritances. The California law provides that the first \$250,000 of the annual proceeds of the State inheritance tax shall be devoted to the State current school fund for elementary schools. Any excess of this amount is credited to the general fund of the State. Since this general fund is used largely as a source of school appropriations, it follows that a considerable part of the proceeds of inheritance taxes, in addition to those composing the specified \$250,000, ultimately reaches the schools.

Virginia provides that a portion of the proceeds of the State inheritance tax shall be devoted to public schools. Louisiana, in contrast to California and Virginia, provides that the entire proceeds of State inheritance taxes shall be used solely for the support of schools.



## CORPORATION TAX

According to a recent statement issued by the Federal Department of Commerce, taxes are levied on corporation stock by 33 States. The following eight States to-day levy a State corporation tax specifically to provide school revenues: New Hampshire, Maine, New Jersey, California, Kentucky, Wisconsin, Delaware, and Virginia. New Hampshire, Maine, and New Jersey use the corporation tax as a source of school revenue only to a limited extent.

On the other hand, Delaware and Kentucky levy a State corporation tax specifically as a school tax and set aside its entire proceeds as a State school fund. Delaware's attempt to place the entire burden of school support upon the State has led her to set aside the entire proceeds of corporation taxes and income taxes as State school funds. In so doing, she has applied these taxes more widely and more completely to school support than any other State in the Union.

Wisconsin maintains a very complete system of State corporation taxes. In keeping with the policies of many other States, corporations are classified and varying rates and bases of taxation employed. The proceeds are in part retained by the State and in part returned to the counties, cities, towns, and villages in which the property taxed is located. Wisconsin annually appropriates to her common-school income fund an amount equal to seven-tenths of 1 mill for each dollar of the assessed valuation of the taxable property in the State, exclusive of the property of corporations, upon which corporation taxes are paid. This annual appropriation is derived as follows: \$200,000 from the proceeds of corporation taxes, the balance from taxes levied upon all other taxable property in the State.

Kentucky provides for an annual levy of a 2.6 mill tax on the real and personal estate and on the franchises of corporations, and devotes the entire proceeds of the same to the State school fund.

In both California and Virginia the schools have definite claims on the corporation tax, although in each of these States a portion of the proceeds is turned into the general fund of the State and used for projects other than schools.

California has developed this type of taxation extensively. California devotes a portion of the proceeds of corporation taxes directly to the State high-school fund. The remainder of the proceeds is paid to the State general fund of which approximately 60 per cent is derived from the proceeds of corporation taxes. Out of this general fund California provides State aid amounting to \$30 per child in average daily attendance. From this same fund she makes appropriations to meet the costs of certain other educational projects. It follows that a large portion of the proceeds of corporation taxes ultimately reaches the schools.



**STATE AND DISTRICTS SHOULD DEPEND ON DIFFERENT SOURCE OF REVENUE**

Students of taxation have repeatedly emphasized the fact that wherever possible the State should draw its revenues from different sources than those taxed by its constituent political corporations. This principle has received definite and practical recognition in both Massachusetts and California. Neither of these States levies any State general property tax. In Massachusetts the State draws the major portion of its revenues from the income tax. California, after years of experimenting, gave up the general property tax as a State tax and depends for the major portion of her State revenue upon inheritance and corporation taxes. At the time California entered on her policy of making corporations, rather than real and personal property, the source of State revenues she recognized clearly that she was embarking upon an experiment. This policy once introduced grew in favor and its success furnishes abundant testimony as to the soundness of the practice.

It is possible that a study of revenues which Utah could produce by providing a State severance tax, a State corporation tax, and a State graduated personal income tax would show that Utah, like California, North Carolina, and Massachusetts, could do away entirely with her present State general property taxes. On the other hand, if she can not at present do away with the State general property tax she can by adopting other forms of taxation greatly reduce her present rates, both State and local.

In proposing newer types of State taxation emphasis should be laid upon the fact that the reason for introducing such taxes is to reduce the general property tax, both State and local, so far as possible.

**STATE EQUALIZATION FUND SHOULD BE PROVIDED EVEN IF GENERAL PROPERTY TAX IS NECESSARY**

If Utah is not prepared at the present time to provide the proposed State equalization fund from some newer type of taxation and would, therefore, be obliged to resort to a further use of the general property tax, it would nevertheless require little argument to show that even under these circumstances the equalization fund should be provided.

It will be recalled that the proposed equalization-fund program would limit the taxes which districts would levy in order to provide their portion of the minimum program of \$70 per-pupil in average daily attendance to a rate of 2.323 mills on true valuation. The adoption of this uniform rate would call for an increase over the rates levied in 1925 in only one district—namely, Cache—and there an increase of only two one-hundredths (0.02) of a mill. In every one



of the remaining 39 districts there would be a reduction in local rates varying from less than 1 mill to 2 mills in 11 districts from 3 to 4 mills in 17 districts, and from 5 to 8 mills in 11 districts. (See Table 47.)

Upon the basis of the total assessed valuation of the State, as reported by county assessors and published in the Salt Lake Tribune May 29, 1926, the total assessed valuation of Utah is now \$490,836,117. To raise the proposed equalization fund on this valuation would require a general property tax of approximately 3.8351 mills. In view of the fact that this tax would be state-wide, it follows that the property of every district would be obliged to pay this tax in addition to the proposed 2.323 or compulsory minimum tax, making a total tax of approximately 6.1581 mills.

A study of the tax rates actually levied on assessed valuation in 1925 for current expenses will show that 26 districts levied tax rates varying from 7 to 12 mills. Of these 26 districts, 11 levied taxes between 7 and 8 mills and 15 from 9 to 12 mills. (See Table 47.) It will be seen, therefore, that if our program were adopted, 26 districts would have levied upon them by combined district and State tax rates varying from 1 to 6 mills less than the rates which they now levy entirely as district taxes.

#### SUMMARY OF RECOMMENDATIONS

Preceding sections have described Utah's present system of school support; they have pointed out the many merits of this system, as well as the defects, and have suggested remedies. The reasons for these recommendations have been explained at considerable length, and an estimate made of the moneys required to carry out the most important of them. It is desirable to bring together here at the close of this section of the present report the recommendations which have been scattered throughout different sections. It has seemed best to add to the recommendations specifically presented, in earlier portions of this report, certain others which, although not stated, follow either by implication of the principles laid down or as a means necessary to make possible the application of these principles, or as a consequence of the application of these principles.

##### I. RECOMMENDATIONS CONCERNING STATE FUNDS,

1. For the sake of equalizing educational opportunities, school revenues, and school burdens provide for guaranteeing to every child such a minimum educational opportunity as may be represented by an annual expenditure of a fixed uniform amount for maintenance and support per child in average daily attendance. Such minimum



educational opportunity shall hereafter be known as the minimum program.

The program of \$70 per pupil in average daily attendance, suggested in the present report, is based upon the State average expenditure in 1925 per pupil in average daily attendance, including both elementary and high-school pupils.

2. Hereafter the costs of the minimum program shall be computed separately for elementary schools and high schools, and the State shall provide separate equalization funds for these two classes of schools. Kindergarten costs shall be included in elementary school costs.

3. Authorize and direct the State board of education to determine annually the minimum program which shall be equalized by the State, such minimum to be not less than the State average expenditure per child in average daily attendance during the preceding school year.

4. When the total expenditure for a district computed on the basis of a minimum expenditure per pupil in average daily attendance does not provide a minimum amount per full-time teacher employed, including superintendents and all other supervisory officers (such minimum expenditure per teacher to be determined by the State board of education), the fund for this district shall be calculated on a per teacher basis following the practice of California.

The purpose of this provision is to protect the small school which would be unduly discriminated against were the minimum program estimated on the basis of attendance.

5. Three plans for equalizing educational opportunities, school revenues, and school burdens:

*Plan 1.*—Place upon the State the responsibility of providing all funds necessary to meet all costs of the minimum program.

This plan will far more nearly approach complete equalization than any one of the three plans and is considered the most desirable of all plans. Under it the State would provide all moneys required for support and maintenance, thus leaving to the districts the responsibility of providing funds for capital outlay and debt service and any other expenditure not included under support and maintenance.

*Plan 2.*—Existing State funds shall continue to be apportioned to all districts in the State by the methods and upon the bases at present provided by law.

In addition to existing funds there shall be created a State equalization fund.

The richest district in the State, as measured on the basis of equalized or true valuation per child, shall receive no aid from the

State equalization fund. The proportion of the cost of the minimum program which the richest district can not pay from grants to which it is entitled from existing State funds shall be provided by the levying of a district tax.

The rate which this richest district must levy shall be the rate which all districts shall be required to levy in order to share in the State equalization fund. This rate shall be known as the district minimum tax.

Any district which from the proceeds of a tax of this rate and from the proceeds of existing State funds derives sufficient moneys to meet the costs of its minimum program shall receive no aid from the State equalization fund.

All other districts shall receive from the State equalization fund an amount which together with the proceeds of other State funds to which the district is entitled and the proceeds of the compulsory minimum district tax shall be sufficient to pay the total cost of said district's minimum program.

Any district which wishes may levy a tax greater than the compulsory minimum tax and may support a program in excess of the minimum program but shall receive no State aid for such excess.

*Plan 3.*—In case neither of the above plans can be adopted, provide, by constitutional amendments and law, that the combined income of the land interest and rental fund and the State district-school fund shall be apportioned among all districts as follows: One-half on the basis of average daily attendance and one-half as an equalization fund. Said equalization fund to be apportioned by methods embodying the principles of the equalization fund, as set forth under Plan 2.

This plan, although much inferior to either Plan 1 or Plan 2, is offered because it will be a great improvement over existing methods. The present method is the most unscientific and unfair method in existence.

6. Provide that all real and personal property shall be assessed by State officers appointed by the State board of equalization, and that assessment shall be upon the basis of 100 per cent of true or equalized valuations in accordance with existing law. For the sake of relieving the disastrous burdens now placed upon real property by the general property tax and in order to provide the State with increased revenues which will be necessary to carry out the proposals offered under the already presented equalization fund plans, provide for the appointment of a legislative committee to recommend new forms of taxation, with a definite view of deriving State revenues as far as possible from such taxes as income taxes, severance taxes, corporation taxes, taxes on luxuries, etc.



If possible, the State should give up entirely the general property tax as a means of providing State funds, thus reserving the use of the general property tax to counties and to school and other districts.

7. State district school fund.—Abolish the present method of determining the State district-school fund upon the basis of the school census of the previous year.

Provide that the State district-school fund shall be determined upon the basis of the estimated school census of the year in which it is to be apportioned. Such estimate can easily be determined on the basis of trends in school population.

Provide that if, due to an overestimate, the State district-school fund exceeds the amount required to meet all just and valid claims, the balance shall be reserved and credited to the State district-school fund of the following year.

8. State high-school fund.—Abolish the present method of providing the State high-school fund by means of levying a State tax of specified rate.

Provide that the State high-school fund shall be created by the levying of a tax sufficient to provide a fixed amount per pupil in average daily attendance, the rate to be determined annually by the State board of education.

9. Requirements for participation in State school funds.—Empower and require the State board of education to fix and to modify from time to time as conditions warrant the requirements which districts must meet in order to receive aid from State school funds.

It is advised that instead of attempting to list in the constitution or in the laws the specific requirements which must be met a general law shall be enacted providing that in order to share in State school funds districts must fulfill all regulations enacted by the State board of education and all school laws.

10. Establish teachers' pension fund.—Establish a State teachers' pension fund sufficient to provide teachers upon retirement an adequate income. Such law should provide a graduated scale as a basis of determining deductions to be made from teachers' salaries, the rate to increase as salaries increase.

The present law which provides that if any teacher shall receive a salary in excess of \$1,200 then the deduction shall be made on \$1,200 only is unsound in principle.

Provide to reimburse any teacher who leaves a school system not only the sum which such teacher has paid into the pension fund but interest on said sum equal at least to that paid by banks on savings accounts.

Amend the present law so that annuitants and claimants will be guaranteed a definite amount and that there shall be no prorating of grants.



11. **Building program.**—Formulate a State building program, based upon the ascertained building needs of the State university, the agricultural college, and all other State-supported educational institutions. Provide for the issuance of State bonds to furnish the funds necessary to carry out this program.

12. **Permanent State school fund.**—Provide that no moneys belonging to the permanent State school fund or to any other State fund, the purpose of which is to provide a permanent State endowment for educational purposes, shall be invested (1) in mortgages; (2) in Utah State bonds or in any other State bonds chargeable to or dependent upon the credit of the State. The reasons for these recommendations have been clearly set forth in the paragraphs dealing with the investment of this fund.

Provide that moneys belonging to any State fund, the purpose of which is to provide a permanent endowment for educational purposes, shall be invested in one or more of the following classes of securities: United States bonds or other securities issued by the Federal Government; bonds of States other than Utah; bonds of counties, cities, districts, and all other public corporations of Utah or of other States.

Provide that no investment shall be made in bonds of a corporation whose entire bonded indebtedness exceeds 15 per cent of the assessed valuation of its taxable property.

Provide that the State superintendent shall be a member of the board (now the State land board) intrusted with the management, sale, and lease of State school lands and the investment of moneys derived from the sale of such lands.

## II. RECOMMENDATIONS AFFECTING DISTRICT SCHOOL FUNDS

1. **District budgets.**—Authorize and require the State department of education to prepare and furnish gratis to all school districts a standardized budget form.

Require that all budgets and all other financial reports which present a statement of school expenditures shall present these expenditures classified not only on the basis of function but by schools.

**NOTE.**—The purpose of this latter provision is to make it possible to compare the cost of the same items in different schools.

2. **School taxes.**—Amend the present law so as to provide that for the purpose of fixing tax limits districts shall be classified upon the basis of equalized or true valuation per school child, the same to be determined by the State board of equalization.

If Equalization Plan 1 or Equalization Plan 2 be adopted (but not otherwise), amend the present law so as to provide that tax limits shall decrease as valuations per school child decrease and vice versa.



3. *School bonds.*—As a basis for fixing the limits of bonded indebtedness, provide for the classification of districts upon the basis of equalized or true valuation per school child, said valuation to be determined by the State board of equalization. If Equalization Plan 1 or Equalization Plan 2 be adopted (but not otherwise), amend the present law so as to provide that limits of bonded indebtedness shall decrease as valuation per child decreases and vice versa.

Provide for cities a definite method of determining the legality of any proposed bond issue, similar to the method now provided in the case of county districts of the first class.

Amend sections 4628 and 4709 of the present law so as to require that all bond election notices, in addition to the information which they are now required to present, shall state: (1) The present total outstanding indebtedness; (2) the tax rate at present levied by the district for interest and for sinking fund; (3) the additional rate which must be levied if the proposed bonds are issued.

Amend section 4614 of the existing laws so as to require that the annual published report of the board of education or superintendent of schools of county districts of the first class shall, in addition to the items now required, present the following: (1) Number and value of outstanding bonds; (2) amount and maturity of each issue; (3) annual expenditure for interest on bonds; (4) annual amount which must be added to the sinking fund; (5) a statement showing the exact condition of the sinking fund, including the following five items: (a) Securities in which sinking fund is invested, (b) annual interest derived therefrom, (c) moneys awaiting investment, (d) all receipts credited to sinking fund during last fiscal year, and (e) all disbursements made from moneys belonging to the sinking fund during the last fiscal year.

Amend section 4635 of the laws of Utah so as to prohibit the refunding of bonds as a means of providing payment at the time of maturity.

(NOTE.—Refunding should be permitted only when a lower rate of interest or better terms can be secured.)

Amend the present law so as to require that instead of setting aside each year as a sinking fund 2 per cent of the par value of outstanding bonds, districts shall be required to set aside annually such per cent as will at the close of 20 years redeem the entire issue.

It has been noted that in the case of 5-per-cent bonds this rate will amount to approximately 3.0243 per cent.

Enact legislation to require the adoption of serial-bond policy by all political corporations empowered to issue bonds.

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